

Landscape Analysis

on young people's engagement in climate change and health in six LMICs in Africa and Asia

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Executive summary

Introduction

The health and well-being of future generations are bound to the fate of the planet. A 4°C warmer world will have catastrophic and wide-ranging effects on social, ecological and economic systems, and impacts will be disproportionately felt in low- and middle-income countries (LMICs) in the 'Global South'. In fact, climate change is already having devastating effects across the globe, and the need for transformative climate action is urgent.

Young people – defined in this research as people of ages 10-24 years – are already having to cope with the impacts of climate change and global heating, with unequal impacts on young women, girls, the urban poor and other marginalised and minoritised young people. However, young people are also active agents of change and have demonstrated the capacities and agency to advocate for and contribute to climate action and resilience-building. Yet, despite the proven capabilities of young people, structural barriers and normative beliefs too often fail to recognise their rights and agency to participate beyond a tokenistic level.

While a lot of attention has been given to the efforts of young people in the 'Global North', the work in parts of the world where climate impacts are being disproportionately felt should not be overlooked and be given more resources and support. Young people make up a large proportion of LMIC populations and so their engagement and participation in climate action and decision-making is crucial for intergenerational climate justice and broader social equity.

This research aims to contribute to young people's engagement efforts for climate change and health action by identifying, mapping, and analysing actors, stakeholders and initiatives relevant to young people's engagement in six countries facing climate risks and public health challenges – Ethiopia, Kenya, and Senegal in Africa, and Bangladesh, Indonesia, and Vietnam in Asia. To analyse young people's engagement, we build on frameworks and approaches from several scientific disciplines to identify key elements that inform the involvement: social context, substance, procedure, power, and agency.

In each country context, the research investigates current knowledge of young people's engagement; relevant policy and governance mechanisms; roles and responsibilities of key actors and stakeholders; and what factors enable or challenge effective engagement. Based on the findings, we offer recommendations for stakeholders to enhance the engagement of young people in climate change and health action.

Following literature review, policy analysis and an online survey, key informant interviews (KIIs) with representatives from government agencies, academia, NGOs and CSOs, private sector actors, and youth leaders, were conducted in each of the six countries to gain a more in-depth and nuanced understanding of issues and approaches. Similarly, focus group discussions (FGDs) were conducted in each country with young people from three age groups: 10-13 years, 14-17 years, and 18-25 years.

State of knowledge

The 'Fridays for Future' school strikes for climate, initiated by Greta Thunberg in Sweden in 2018 and since spread around the world, have moved not only young people but also decision-makers and other climate actors to consider their roles and actions. Among the scientific community, new research has emerged to investigate the role of young people in climate action, as well as in broader decision-making processes. The literature on young people's engagement in climate change in LMICs pre-dates the 'Fridays for Future' movement but remains niche and is evolving.

Research on young people's engagement in climate change in LMICs falls into two major types. The first one is research by young people themselves as part of projects by international and non-profit organisations. In these initiatives, young people receive research training and practice stakeholder engagement. The second line of research is led by adults, either involving young people as informants or reflecting on participatory methods and approaches. These studies and their findings show young people are already taking climate action at different scales, whether through personal behavioural change or at the community level, and through different formats, in research, activism, volunteer activities or livelihoods. They also highlight the role of key international actors, such as child-centred NGOs such as Save the Children, Plan International, and World Vision, in working with in-country partners and actors.

When it comes to the intersection between climate change and health, both the literature review and primary data analysis found limited research and engagement. Young people often engage in climate change, environmental protection, or health activities separately. They tend to be more active in environmental sustainability and protection than in climate change and health, though climate change and environment-related engagement may indirectly have a health component or outcome. Research has also paid more attention to the impacts of climate change on young people's health and well-being, rather than their engagement in addressing such issues.

Policy contexts and landscape mapping

Regional and national policies play an important role in young people's engagement. Policies in all six countries give little attention to the links among health, climate change and young people's engagement. Some policies factor in the health impacts of climate change on young people or mention the roles of young people in protecting the environment, but most still see young people as a vulnerable group in a changing climate. The policies provide little details as to how young people can act on climate and health issues.

Across Kenya, Ethiopia, and Senegal, Bangladesh, Indonesia and Vietnam, various legislations, regulations, and policies address climate change, health, and young people. A key gap, however, is the lack of a multi-sectoral approach. Even though climate change is often framed as a cross-cutting issue, policies give limited attention to the links between the health impacts of climate change and young people.

In general, the policies highlight the effects of climate change and health challenges on young people, with a focus on reducing vulnerability rather than engaging young people. In these policies, young people are listed as one of the most vulnerable groups but without any mechanism for them to participate. Moreover, while policies were developed based on consultations with diverse stakeholders, the role of young people in these processes is not clear.

Where clear synergies do exist, plans to address the health impacts of climate change have three main focuses. The first is on health protection, by ensuring food security, access to basic services, and improving health systems. The second aims to improve knowledge on health impacts of climate change, through research and development, education and awareness. The third is about mainstreaming climate change adaptation into the health sector to realise their synergies. The role of young people in the implementation of such plans is rarely detailed.

Bangladesh

In Bangladesh, young people play prominent roles in spreading awareness on climate change and health. Local youth groups are leading campaigns and workshops while also engaging with key actors in the non-profit sector. Over the past years, organisations have gone from targeting young people as beneficiaries to engaging and empowering them as leaders. Efforts to engage young people in tackling the health impacts of climate change, however, are still limited. While progress has been made in terms of health adaptation planning, young people are not yet involved in these initiatives.

The engagement of a young Bangladeshi is faced with several obstacles. Culturally, there is still a belief that young people do not have the capacity to participate in public matters, and that their focus should be on education and career development. Technically, relevant scientific knowledge has not been made accessible or mainstreamed in school curricula.

Ethiopia

Young people in Ethiopia have started engaging in climate change and health through both formal and informal channels. Government agencies engage young people in policy processes as well as in campaigns and advocacy activities. Young people also participate in programmes led by international organisations and local youth organisations, as well as in school-based youth clubs. Popular areas of engagement range from reproductive health, nutrition, and infectious diseases to climate-smart agriculture and reforestation.

However, engagement efforts are faced with the lack of training opportunities for young people, inadequate institutional mechanisms as well as the lack of funding and capacity within institutions to engage. In many cases, young people are still seen as beneficiaries of programmes and services rather than active agents. Gender norms are also highly influential, as young men are more present in climate and health engagement than young women.

Indonesia

Creative and technology-savvy, young people in Indonesia are valued for their energy, enthusiasm, and adaptability. Climate change and health actors see their engagement as opportunities to bring in new ideas and share ownership of policies and action. Government agencies have involved young people in their work through several initiatives, particularly at the village and community level, such as through the Climate Village Programme. Social media, online influencers as well as religious leaders and religious groups are major sources of inspirations and awareness for young Indonesians.

Yet, their engagement in climate change and health remains piecemeal and unsustainable. Government offices have little budget and few programmes to engage young people over the long term. State actors also operate in silos and with little experience working with young people, making it difficult to mainstream and scale up their engagement across sectors. Moreover, while young people are aware of and curious about climate change and environmental sustainability, they lack access to age-appropriate knowledge, hampering effective engagement.

Kenya

In Kenya, young people play a key role in tackling climate change. Already, youth-led and youth-focused organisations are active in climate adaptation and mitigation, and working to enhance young people's effective participation. Maintaining nurseries and planting trees in school's religious centres and public spaces are popular activities. Funding for young people is also available, such as through the 'Uwezo Fund' – a flagship programme aimed to support women, youth and persons with disabilities to access grants and interest-free loans for businesses and enterprises.

Based on this, deliberate and systematic efforts are necessary to equip and empower young people to realise their full potential and, in turn, achieve sustainable development and other development objectives. Thus far, policies have helped the country achieve several key milestones in young people's empowerment. Their role in tackling climate change impacts on health, however, has not received enough attention in current policies.

Senegal

Young people are already an active force in Senegal's civil society. They are participating in many projects and initiatives around climate change and the environment, engaging both through non-profit organisations as well as youth-led activities. School-based clubs are also among the most prominent approaches to engage. To date, however, policies and decision-makers, particularly on the health side, have largely overlooked the role of young people.

While young people are proactive and ready to engage, their participation is still limited by the lack of relevant training and information and the means and channels to participate. This leads to the perception of adults that young people lack the awareness and capacity to engage and the lack of interests from institutions and organisations. Rather than playing an active role, young people remain an audience or beneficiary of those efforts.

Vietnam

In Vietnam, young people's engagement is a priority for state and non-state actors alike. Most engagement activities take place at schools, where the Youth Union is a key actor, with support from government agencies. NGOs and UN agencies are perceived as most active, with many projects and programmes involving young people in climate and health. International organisations are seen as more powerful and influential, thanks to their international network and presence.

The implementation of policies targeting young people engagement is limited by perception and biases against young people. When it comes climate change, the lack of awareness on climate change in the society makes young people's engagement even more challenging. More efforts are needed to engage vulnerable and minoritised groups, such as young people in remote, mountainous areas and ethnic minorities.

Young people's engagement in climate change and health

Forms of engagement

While policies for young people's engagement in climate change and health may be lacking, past and ongoing initiatives in all six countries can teach critical lessons. There are currently three major forms of engagement: engagement led by young people, engagement facilitated by the state, and engagement facilitated by non-state actors. Engagement in activities or organisations led directly by young people can take the form of a youth-led group, organisation, or club; a social enterprise, start-up, or business run by young people; event-based activism such as climate marches and strikes; and climate litigation, in which young people hold governments and the private sector accountable, demanding action to reduce greenhouse gas emissions, deforestation and suing government for inaction on climate change.

These approaches, however, are not mutually exclusive. In many cases, an NGO or UN agency may partner with a statesponsored youth group, and a government department may help found a club or organisation to be run by young people themselves. Less common is when youth groups approach governmental and non-governmental institutions with their needs and are supported.

Focus of engagement

Whether young people are leading efforts by themselves or working with the government and other organisations, engagement often focuses on increasing awareness, decision and policy making, and concrete action to address climate change and health.

One of the most popular youth activities in all six countries is raising awareness and advocacy. These initiatives teach young people about environmental, climate change and health issues, and inspire behavioural changes both among those who participate and their audience. Besides awareness and advocacy, young people also participate in decisionmaking and policy processes. In some cases, their inputs are sought by the government, while in others, young people actively inform policy processes and outcomes.

Not only are young people engaging in advocacy activities and policy processes, but they are also directly taking part in in adaptation and mitigation efforts, at the personal, community and higher levels. Already, in all six countries, young people are acting every day to protect the environment and encouraging those around them to do the same. Many are picking up green, sustainable lifestyles by avoiding plastics and switching to environmentally friendly transportations. Others are involving and even leading in activities such as tree planting and reforestation, land and water management, and saving energy. Overall, these activities reflect a higher level of awareness on environmental sustainability in general than of climate change specifically.

Power and agency

Rich and diverse forms of engagement suggest that young people have unique powers. Young people and youth groups are active, important, and influential in climate change and health. Young people bring fresh perspectives and unique skills, such as ability to adopt new technologies, along with a high level of enthusiasm and excitement.

The power and agency of young people also comes from a desire to contribute to society. Young people wish to lead and coordinate advocacy efforts, spread knowledge, contribute to the community, and do good for the society. Young people are also strong at using their social network to increase awareness and advocate for change. Young people do not only apply the knowledge gained through engagement, but they also scale it up by reaching out to experts, talking to local governments, and sharing with friends and families, including minoritised groups who may not have access to such information.

Equally important is giving young people agency to act on their power. It is most effective for young people to be the lead or co-lead of activities, and the more agency in the design and implementation the better. In many projects, young people play a key role from the very first step of designing, to implementing, following up and monitoring – they have the full power and agency.

Factors that impact engagement

Despite great potential, young people may not have equal access to opportunities and the space to practice their power and agency. Important factors that shape the effectiveness of young people's engagement include language, gender, economic background, age, ability, and geography.

For example, engagement with young people often takes place in official languages, leaving out people in remote, rural communities, and ethnic minorities who may use a different language or dialect. Furthermore, climate change information is more available in English rather than local languages and dialects. Hence, opportunities are more accessible to young people with English capacity, which depends on access to education and is different among groups according to socioeconomic background. Furthermore, activities that target young people are often designed with school and university students in mind. Fewer opportunities are available for young people who are not in school, such as young farmers, young workers, young civil servants, as well as young mothers.

Barriers to effective engagement

In addition to socio-economic factors that differentiate groups of young people, their engagement is also challenged by structural, organisational, and financial barriers, access to information and resources, and social and cultural norms and perceptions.

For example, it is hard for young people to engage when policies and strategies are not accessible to them, and institutional mechanisms are not inclusive. This is the result of many policy- and decision-makers viewing young people as passive victims. In certain cases, even when there are institutionalised channels to participate, engagement can be bureaucratic or tokenistic.

Another significant challenge to young people's engagement in climate change and health is the lack of capacity within institutions and organisations to engage young people. This may stem from a lack of interest in engaging young people, which is a long-term commitment without immediately visible outcomes and impacts. Closely linked to this is access to funding – a challenge in all countries, partly due to the lack of effective financial mechanisms in the climate change sector. Without recognition and formal channels to participate, young people have neither allocated budget nor legal status to fundraise. Financial constraints, however, also result from young people's lack of experience and skills in fundraising, budgeting, and financial management, making training and access to knowledge crucial.

In many cases, adults see young people as victims rather than agents of change. Interests and initiatives from young people are often not met with an equal willingness to listen and engage from public and private organisations alike. It has been found that some adults can lack trust in young people when working to address issues such as climate change and hold the belief that young people's place is at school and in the classroom. This attitude does not only impact the opportunities for young people to participate but also their own motivation and aspiration.

Discussion and conclusions

Young people's engagement is on-going in all six of the studied countries. Whether it is through government consultation, development projects, volunteering programmes, social movements, or activism, youthdriven civic engagement proves an important force in tackling environmental and health challenges. In both rural and urban areas in Bangladesh, Indonesia, Ethiopia, Kenya, Senegal and Vietnam, young people are raising public awareness, participating in policy processes, and taking concrete actions to adapt to climate change and improve public health.

The role of young people in addressing health impacts of climate change, however, remains a gap. Currently, some programmes and initiatives involve young people in parallel

health and climate change projects, while others draw the links between health, well-being and environmental sustainability, such as through the population, health and environment (PHE) approach. Climate change and environmental engagement may also have health co-benefits, such as efforts related to climate-induced disasters, air pollution, agriculture, or energy-saving stoves with positive impacts on well-being, respiratory health, and food security. There is room for more efforts to engage young people with an explicit focus on climate change impacts on health.

Much, however, can already be learned from the current actors that work with young people in climate and health, including local and international NGO staff, researchers and academics, schoolteachers and health workers, and policy and decision-makers. Their diverse perspectives have shown that young people's engagement must be nurtured, invested in, and sustained over the long term and in their own communities. Education to build knowledge early on helps spur interests and awareness of local issues and inform action and engagement as they grow up. Youth-friendly and actionable messaging about climate change is an important enabler. Past and ongoing participatory approaches to grapple with sexual and reproductive health, mental health, and WASH topics lay out a health entry point. Technical, human, financial and material resources must be coordinated, and policies and institutional mechanisms developed to ensure young people can engage in a meaningful way.

These factors do not only help our communities solve the urgent climate crisis with young people's unique powers and capacities, such as social network and peer influence, and social media and technology savviness. Young people's engagement also ensures climate and inter-generational justice.

Young people living in remote regions, informal settlements, with different abilities, of ethnic minorities, and non-normative genders and sexualities, as well as young people in the work force, young farmers and mothers, are disproportionally vulnerable, with lower access to information, resources and opportunities. Their ideas and inputs are important and must not only be listened to but also acted upon and realised.

Engaging young people in climate change and health also allows traditional knowledge passed on through generations to be included in climate change action. Participatory approaches can help protect knowledge from the older generations and Indigenous communities and reflect young people's lived experience in policies and action. Youth leaders themselves have highlighted the importance of their own perspectives. Young people's engagement is thus an avenue to shift the power over the climate agenda and ownership of knowledge back to local communities.

Recommendations

Young people are undoubtedly shaping climate change and health action at different scales across Bangladesh, Ethiopia, Indonesia, Kenya, Senegal and Vietnam. The effective engagement of young people in grappling with the health impacts of climate change, however, requires greater recognition and concerted efforts from public and private sector actors alike.

Based on the research findings, we present recommendations for three key actor groups in climate change, health and young people's engagement: i) decision-makers, ii) civil society organisations, and iii) funders. The recommendations are rooted in the research conducted in the six countries but are relevant for young people's engagement in climate and health across scales and regions.

Decision-makers

Decision-makers at all levels should identify, establish and support formal avenues for young people to be part of decision-making and implementation processes, while also making administrative processes and policy communication inclusive for people of all ages, abilities and background. This may be done through:

- Mainstreaming young people's engagement in sectoral planning, policies and implementation. This can take the form of mandated youth consultation in policy processes or institutionalised youth constituencies in government agencies.
- Investing in capacity building for government offices at all levels, particularly sub-national and local governments, to effectively and meaningfully engage young people. For example, this may include the capacity to facilitate or engage in dialogues with young people; to use social media for communication; and to work with schools, universities and NGOs to empower youth actors.
- Allocating sufficient and sustained financial resources for efforts engaging young people, including for capacity building and project implementation, and for creating and overseeing coordination and M&E mechanisms to ensure effective implementation.
- Making institutional procedures, particularly those related to young people and youth-led initiatives, accessible to all. This may include streamlining processes and simplifying administrative requirements to, for instance, access financial resources, provide inputs to decision-making processes, or establish a youth-led entity or network.
- Integrating knowledge on the health dimensions of climate change into national school and higher education curricula. Education ministries should work with climate change and health knowledge producers and actors to

include public health concerns in on-going efforts to mainstream climate change into formal education systems at different levels.

Civil society organisations

Civil society actors, including practitioners, NGOs, and researchers, play important roles in bridging the government and the general public, including young people. To enhance meaningful engagement, civil society must sustain and expand efforts to work with young people in holding public and private sector institutions accountable and demand for transformative climate action, while supporting the empowerment of future generations to address climate and health issues. This may be done through:

- Advocating for the links between climate change and global heating, health and other development challenges to be articulated and reflected in policies and coherent decision-making and climate and health.
- Co-designing and implementing projects and initiatives in partnership with local youth-led organisations, ensuring the sustainability of young people's engagement.
- Leading on capacity building for all relevant state and non-state actors, at different levels, to work with young people on climate and health matters.
- Leading on capacity building for young people to engage in decision-making processes and implement youth-led initiatives, for example through evidence-based, interactive, practical and sustainable activities on climate change and health, with a focus on coordination, management, fundraising, different forms of (age- and ability-appropriate) communication, and M&E skills.
- Raising awareness for all community members on the health impacts of climate change, creating an enabling and supportive environment for young people's voices to be valued, heard, and acted upon by all.
- Building programmes with tangible incentives and cobenefits, not only to attract the attention of young people, but also to ensure diversity and inclusion. For example, by following the model of self-sustaining social enterprises to support livelihoods and skills sharing.
- Recognising and including traditional and local knowledge pertinent to climate change, health and young people, to ground programmes and initiatives in local communities and protect Indigenous Peoples cultures and identities, where appropriate.
- Recognising and including the voices and experience of under-represented groups, including young people with different abilities, Indigenous Peoples, non-normative genders and sexualities, as well young mothers and those not in schools and formal education systems.

 Research, create networks and platforms, and share best practices and lessons learned on effective and meaningful young people's engagement, for example on political movements and advocacy efforts linked to climate and health action.

Funders

International donors and national funding agencies are key actors for ensuring young people are meaningfully engaged in climate and health action, from decision-making to programme implementation, and must play a role in enhancing the current level of engagement. This may be done through:

- Actively seeking to support stronger connections and collaborations between the climate change and public health sectors, to enhance young people's engagement in relatively new cross-sectoral spaces for learning and knowledge creation.
- Identifying and scaling-up existing youth-led initiatives, especially those not supported or facilitated by the state or another institution, which tend to be small and underfunded.
- Prioritising funding support for marginalised and minoritised groups and communities often excluded from mainstream funding opportunities, either due to a lack of awareness or capacity to access but are still facing (or are expected to face in the future) health- and climate-related challenges.
- Prioritising new and alternative ways of engaging young people, such as through social media platforms or emerging information and communication technologies. It is important to ensure that these new approaches are inclusive and tackle, rather than reinforce, pre-existing social inequalities.
- Engaging with and learning from health actors that have adopted participatory and inclusive approaches to addressing young people's health issues, particularly sexual and reproductive health and WASH, which may be exacerbated by climate change.
- Supporting long-term partnerships between the more established, well-resourced, child-centred international organisations and emerging grassroots, youth-led networks, to build new capacities and identify transformative actions for climate and health rooted in local ownership
- Supporting and creating more opportunities for youth-led networks and groups operating at different scales, for example by removing barriers to entry linked to application processes, financial requirements and limited capacities and networks.

Introduction

The health and well-being of future generations are bound to the fate of the planet. The Lancet Countdown on Health and Climate Change report found that a child born in 2019 will experience life that is, on average, 4°C warmer than global pre-industrial average temperatures (Watts et al. 2019). A 4°C warmer world will have catastrophic and wide-ranging effects on social, ecological and economic systems, and impacts will be disproportionately felt in low- and middle-income countries (LMICs) in the 'Global South'. In fact, climate change is already having devastating effects across the global, and the need for transformative climate action is urgent.

Young people – defined in this research as people of ages 10-24 years (WHO 2011) - are already having to cope with the impacts of climate change and global heating, and face particular challenges. Young people have poorer baseline health conditions than adults, and face more acute socioeconomic development challenges (Clark et al. 2020; Hanna and Oliva 2016; Vaghri 2018). For example, extreme temperatures not only cause illnesses such as heat stroke but can also exacerbate poverty and food and water insecurity through natural resource degradation. This can result in malnutrition and water-borne diseases, with unequal impacts on young women, girls, the urban poor and other marginalised and minoritised young people (Boyland and Johnson 2018; Green et al. 2019; Swinburn et al. 2019). Climate change also has implications for young people's mental health and psychological vulnerabilities by amplifying development challenges, damaging community well-being and creating a sense of hopelessness (Berry et al. 2010; Majeed and Lee 2017).

Young people are also active agents of change (Fletcher et al. 2016; Haynes and Tanner 2015; Peek et al. 2020). Neither passive victims nor dependent observers, young people have demonstrated the capacities and agency to advocate for and contribute to climate action and resilience-building (Cumiskey et al. 2015; Narksompong and Limjirakan 2015). This is embodied by the worldwide 'Fridays for Future' school strike movement, youth-led climate justice and litigation efforts, as well as bottom-up community engagement and mobilisation efforts (Peek et al. 2020).

While a lot of attention has been given to the efforts of young people in the 'Global North', the work in parts of the world where climate impacts are being disproportionately felt should

not be overlooked and be given more resources and support. Young people make up a large proportion of LMIC populations and so their engagement and participation in climate action and decision-making is crucial for intergenerational climate justice and broader social equity. Greta Thunberg and the 'Fridays for Future' school strike movement has achieved a lot and become well-known, but the voices of youth activists Kyaw Ye The from Myanmar, Mariel Ubaldo from the Philippines, Vanessa Nakate from Uganda, Makena Muigai from Kenya and many more should also be heard on the global stage. Yet, despite the proven capabilities of young people, structural barriers and social norms prevent the fulfilment of their rights and agency to participate beyond a tokenistic level (Peek et al. 2020; Vaghri 2018).

The impact of climate change and global heating is no longer a far-off, distant threat to humanity. Ultimately, young people, as inheritors of this planet, have a stake in its future. Urgent and transformative climate action at all levels is needed now. Young people play important roles, from holding world leaders and private corporations accountable to act on climate change, to leading adaptation and mitigation efforts at the community level.

This research aims to contribute to young people's engagement efforts for climate change and health action by identifying, mapping, and analysing actors, stakeholders and initiatives relevant to young people's engagement in six countries – Ethiopia, Kenya, and Senegal in Africa, and Bangladesh, Indonesia, and Vietnam in Asia. These countries were selected due to high levels of climate risks and existing public health challenges, as well as with consideration for cultural diversity and varying levels of socio-economic development.

In each country context, the research investigates current knowledge on young people's engagement; relevant policy and governance mechanisms; roles and responsibilities of key actors and stakeholders; and what factors enable or challenge effective engagement. Based on the findings, we offer recommendations for stakeholders to enhance the engagement of young people in addressing climate change risks and health-related impacts.

Research framework

Young people's engagement in public matters is central to both representation and empowerment. Young people have a stake in matters pertinent to their lives and future. Their voice in decision-making shapes the quality and outcome of services and policies. Moreover, by participating, young people build new skills and knowledge while receiving due weight for their expertise. For the purposes of this research, we define young people's engagement as the participation and involvement of people of age 10-24 years in planning, decision-making and/or implementing activities related to climate change and health, at different scales of governance from community to national levels.

To analyse young people's engagement, we build on frameworks and approaches from several scientific disciplines to identify key elements that inform the involvement: social context, substance, procedure, power, and agency (Figure 1). Each element is explained below.



Figure 1. Elements of an analytical framework on young people's engagement

Social context: social norms and contexts determine the extent to which young people engage in decision-making and implementation. Critical youth engagement theory highlights history, privilege, power, and intersectionality as factors influencing social equity in engagement (Fox et al. 2010). Young women's involvement in policy making is informed by socio-political, organisational, and community structures which shape their identities, leadership experiences and responsibilities (Levac 2013). These factors highlight the importance of situating young people's engagement in social, economic and political contexts to understand, assess, and evaluate its processes and outcomes.

Substance: the design and analysis of young people's engagement also need to consider engagement forms, focuses, and outcomes. Existing engagement models highlight the importance of the objective, structure, and breadth of engagement activities (Riemer et al. 2014; Rose-Krasnor 2009). The issues young people engage in and who set the questions are critical (Ozer et al. 2020).

There are many approaches to engage young people, including participatory action research, young people-led planning and organising, human-centred design, participatory arts, and advisory board (Ozer et al. 2020). These activities and forms of engagement create individual, relational, systems, and environmental outcomes (Riemer et al. 2014). Based on theory of transformation and the extent to which outcomes of young people affect change in society, young people's climate change activism can be dutiful, disruptive, or dangerous (O'Brien et al. 2018).

Procedure: procedural aspects of engagement include intensity and duration of engagement (Riemer et al. 2014; Rose-Krasnor 2009). They also include inclusivity (e.g., financial support or ease of registration to participate), transparency (e.g., availability and clarity of information and agenda), interactivity (e.g., opportunity to deliver opinions and elaboration of inputs in outcomes), and continuity (e.g., mechanisms for feedback and implementation updates) (Yunita et al. 2018).

Power: analysis of engagement requires recognising the unique power of young people. Young people may draw from their 1) cognitive power (knowledge and information), 2) leverage power (access to decision-making), 3) symbolic power (legitimacy), 4) material power (resources), and 5) social power (social network) (Thew 2018). Additionally, implementing Article 12 of the United Nations Convention on the Rights of Children requires providing young people with: space (the opportunity for young people to participate), voice (facilitation and information that enable young people to participate), audience (relevant stakeholders), and influence (recognition of due weight) (Lundy 2007). As child rights and empowerment sit at the centre of the model, it can help assess the strengths and gaps in existing young people engagement strategies.

Agency: understanding young people's engagement as empowerment involves analysing the agency of young people, particularly their ability to exert power over processes and outcomes. Young people may act as consultants, collaborators, partners, leaders (Richards-Schuster and Timmermans 2017) or even funders (Ozer et al. 2020). Adults may be training, challenging, politicising and questioning, or legitimising and sustaining young people (Richards-Schuster and Timmermans 2017).

Several frameworks articulate the working arrangement and power dynamics between young people and adults. Based on Arnstein's ladder of participation, scholars develop several models specific to youth, such as Hart (1992), Treseder (1997), Shier (2001) and Wong et al. (2010) (see Table 1). Some models assume linear relation, i.e., the more control young people have the better. Others suggest that all modes are equal (Treseder 1997). What these models have in common are categories of young people-adult arrangement with varying levels of agency and power. They centre on the questions between young people and adults: who initiates the activity, who implements, and who provides inputs and support.

Table 1. Summary of youth engagement models

I	Ladder of children's participation (Hart, 1992)	De	egrees of participation (Treseder 1997)	F	Pathways to participation (Shier, 2001)		TYPE pyramid (Wong et al., 2010)
1.	Manipulation	1.	Child-initiated and	1.	Children are listened to	1.	Vessel
2.	Decoration		shared decisions with	2.	Children are supported in	2.	Symbolic
3.	Tokenism		adults		expressing their views	3.	Pluralistic
4.	Assigned but informed	2.	Consulted and	3.	Children's views are taken	4.	Independent
5.	Consulted and informed		informed		into account	5.	Autonomous
6.	Adult-initiated and shared	3.	Assigned but informed	4.	Children are involved in		
	decisions with young	4.	Adult-initiated and		decision-making processes		
	people		shared decisions with	5.	Children share power and		
7.	Young people-initiated and		children		responsibility for decision-		
	directed	5.	Child-initiated and		making.		
8.	Young people-initiated and shared decisions with adults.		directed.		-		

Methods

This section details the research design and methodology used to answer the research questions, which are as follows:

- 1. What are the strengths and limitations of existing policy and governance systems in the six countries related to climate change, health and young people's engagement?
- 2. What are the main activities, strategic priorities, best practices and lessons learned of actors and stakeholders in the six countries seeking to engage young people in climate change and health action?
- 3. How are young people currently engaging in climate change and health action, and what roles are they playing in tackling issues at different scales in the six countries?

The data collection process for this research has three components: i) literature and policy review, ii) online survey, and iii) key informant interviews (KIIs) and focus group discussions (FGDs). Due to the COVID-19 pandemic, the research was largely conducted remotely to ensure researcher and participant safety and ethical research practices.

Literature and policy review

The literature review included both academic and grey literature. Online searches using Google were conducted to identify relevant grey literature (i.e., technical reports, working papers, white papers, policy briefs) in English language by relevant non-academic actors. This was supplemented by direct searches for publications in relevant organisational websites and databases, such as the United Nations and the World Health Organization (WHO). Literature search results were supplemented with publications identified through KIIs and FGDs.

Academic literature was gathered from online academic publication search websites (e.g., Scopus, Web of Science, Google Scholar and Ebscohost) using search strings built from the terms in Table 2 below.

Policies related to public health, climate change and young people were collected using Google as well as searches in government websites and global databases for relevant documents. Policies and strategies recommended by survey respondents were also gathered and reviewed, if available in English.

Climate change	Health	Young people	Engagement
Climate crisis	Well-being	Youth	Participation
Climate emergency	Human impact	Child	Involvement
Global warming	Psychological	Воу	Activism
Global heating	Physical	Girl	Co-production
Extreme temperature	Biological	Adolescent	Co-creation
Drought	Sick	Kid	Consultation
Flood	Illness	Student	Leader(ship)
Storm	Psychosocial	Teen(ager)	
Heat	Mental		
Heat wave	Stress		
Heat exposure	Anxiety		
Hurricane	Reproductive		
Typhoon	Disease		

Table 2. Terms used in the search strings for literature review

Online survey

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To complement the literature and policy review and inform interview design, we conducted an online survey using SurveyMonkey. The survey gathered information on respondents' background and expertise related to climate change, health, and young people's engagement.

The survey was developed in English and translated into Bahasa Indonesia, Bengali, Vietnamese, Amharic, Swahili, and French. In Ethiopia and Kenya, apart from the online English language survey, it was also administered over the phone to increase access to participants and ease of gathering data in Amharic and Swahili. Pilots and translation protocols were used to ensure the highest quality of data and minimise loss in translation.

The survey initially employed a non-probability sampling approach. In each country, we identified government, academic, private, non-governmental organisations (NGOs) and other civil society organisations (CSOs) actors within the research team's professional networks. Respondents were also encouraged to refer other people or organisations in their network that met the criteria to participate in the survey (i.e., snowball sampling approach).

The survey was available to all, and distributed across our networks via email, telephone, messaging apps, and

promoted and shared periodically on websites and social media platforms by SEI, SCI and Wellcome. The survey was open from April 1 to May 3, 2021. All respondents were required to be over 18 years old.

The survey received a total of 860 responses, of which 519 responses (60% of the total) were included in the analysis after removing incomplete, duplicate, and null responses. There were five responses from countries outside of our scope whose work is relevant to the research and, therefore, included in the analysis.¹

Survey responses were disaggregated according to respondents' answer to the question, *'which sector do you most closely associate with: climate change, public health, or young people's engagement?*' Results by sector were: 45% climate change, 24% public health, and 32% young people's engagement – see Figure 2 for survey respondents by both sector and country.

A closer look at how the respondents in the climate change (n=232) and public health (n=122) sectors engage with young people shows the vast majority (89% and 92% respectively) are currently working, or have previously worked, with young people. More than 50% engage young people frequently in their work (Figure 3).

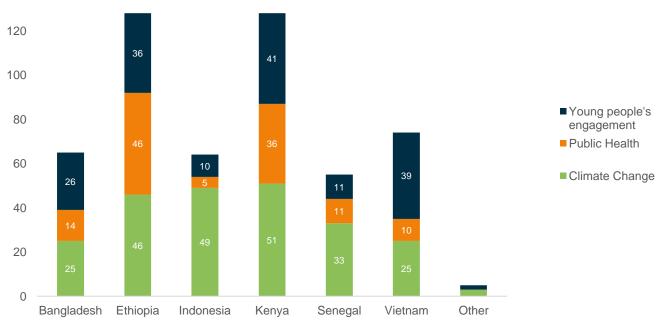


Figure 2. Number of valid survey responses, per country and sector (N=519)

¹ The five additional responses came from Canada, China, Philippines, India and Nigeria.



Figure 3. Survey respondents' level of engagement with young people in climate change and health sectors

Key informant interviews and focus group discussions

KIIs and FGDs were conducted in each country following the online survey to gain a more in-depth and nuanced understanding, and validate information gathered through desk review and online survey.

For the KIIs, a set of seven interview guides were developed for different stakeholder groups: government, academia, NGO/CSO, private, and youth leaders, in climate change, health and young people engagement. For the FGDs, three sets of facilitation guides and questions were used for three age groups: 10-13 years, 14-17 years, and 18-25 years. Guides and questions were developed in English and translated into local languages for use in the six countries. Pilots and translation protocols were used to ensure the highest quality of data and minimise loss in translation.

Potential participants for KIIs and FGDs were primarily identified through literature and policy review and the online survey and supplemented with existing contacts who were not able to participate in the online survey.

Young people who were part of existing SCI networks and programmes related to climate change and/or health in each of the countries were invited to participate in FGDs. KII and FGD transcripts were coded, using grounded theory aligned to the research questions and key themes of the research, with the qualitative research software Dedoose.

Consent forms and participant information sheets were used with all research participants in accordance with ethical research practice, with special measures and safeguards in place for all child participants. With permission, KIIs and FGDs were audio recorded and later transcribed (and translated, as necessary) in English. In several cases where participants did not want to be recorded, detailed notes were taken by the interviewers and enumerators. Several interviewees provided responses in writing due to their preferences and difficulties arranging an online meeting to conduct the interview. KIIs and FGDs participants were offered remuneration for their participation in the form of vouchers or tokens, as deemed appropriate to each country context. The study was ethically approved by the Save the Children US Ethics Review Committee prior to any primary data collection and processing (Reference: SCUS-ERC-FY2021-21).

A total of 136 KIIs and 63 FGDs were conducted across the six countries: a total of 142 people as interview informants and 507 focus group participants. Among the KII respondents, 37% represent the climate change sector, 33% young people's engagement, 21% public health, and 9% from the wider development sector. Figure 4 shows the KII participants per sector, actor type and country, while Figure 5 shows the FGD participants per age group and country.

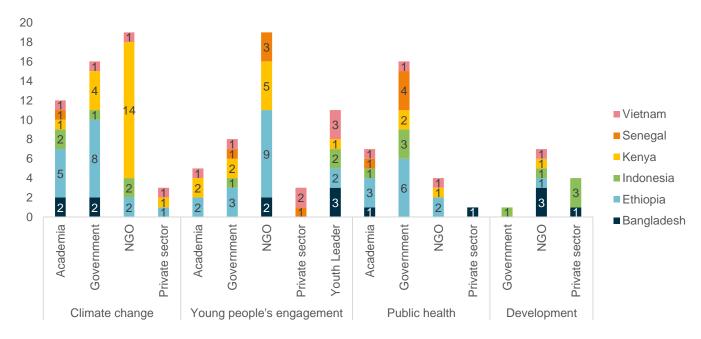


Figure 4. Number of KIIs per country, sector, and actor type

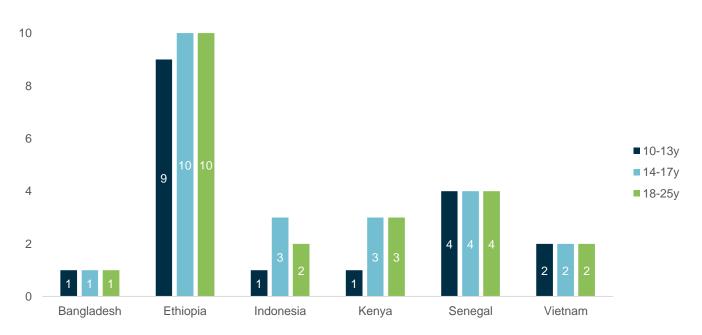


Figure 5. Number of FGDs per country and age group

Limitations

Despite the rigorous methodology and extensive data collection, the research has several limitations. Firstly, the literature and policy reviews were restricted to publications and documents in the English language only. As a result, in some countries more policies were reviewed than others. This was a particular constraint in Senegal, Ethiopia and Vietnam. In Indonesia, a few policies in Bahasa were reviewed with the support of a local researcher from SCI. The policy analysis was substantiated with insights gathered on the state of policies and their implementation through KIIs and FGDs with informants in all countries.

Secondly, stakeholders included in the study and identified through the research methods reflect the network of SCI, SEI, and Wellcome, as well as the availability and accessibility of participants and information. The mapping is therefore not systematic and comprehensive. Nonetheless, the level of engagement and interests in the engagement of young people in climate change and health have been confirmed through the components of analysis and sources of data, (i.e., desk-based literature, survey data and interview data). Thus, the mapping and analysis represents an important baseline for future engagement and follow-up.

Finally, while efforts have been made to include as diverse perspectives as possible in the context of this research, participation in KIIs and FGDs was to some extent determined by existing networks and relationships (e.g., through SCI offices and programmes) or where online survey respondents come from. As a result, some important perspectives related to young people's engagement may not have been captured by this research.

State of knowledge

The 'Fridays for Future' school strikes for climate, initiated by Greta Thunberg in Sweden in 2018 and since spread around the world, have moved not only young people but also decision-makers and other climate actors to consider their roles and actions. Among the scientific community, new research has emerged to investigate the role of young people in climate action, as well as in broader decision-making processes. The literature on young people's engagement in climate change in LMICs pre-dates the 'Fridays for Future' movement but remains niche and is evolving.

Young people's engagement

Research on young people's engagement in climate change in LMICs falls into two major types. The first one is research by young people themselves as part of projects by international and non-profit organisations. In these initiatives, young people receive research training and practice stakeholder engagement. For instance, in 2016, young people in Australia, the Philippines, Nepal, and Vietnam conducted a research funded by Plan International. They interviewed their peers about experiences, aspirations and wishes related to climate change, and put forward recommendations for governments to tackle these challenges (Morrissey et al. 2016).

In Vietnam, in 2021, with support from the United Nations Development Programme (UNDP), as part of the 'Youth4Climate' initiative, young people led a study on existing youth-led initiatives to address climate change across the country, highlighting success stories as well as bottlenecks (Hoang 2021). At the global level, the Global Center on Adaptation's (GCA) 2019 report on young people and climate change involved young people both as authors and through focus group discussions facilitated that they facilitated (Amponsem et al. 2019).

The second line of research is led by adults, either involving young people as informants or reflecting on participatory methods and approaches. Examples of approaches and methodologies to empower and involve young people include research on film making in the Philippines (Haynes and Tanner 2015), and digital storytelling in communities in Indonesia (Plush et al. 2018). In these projects, young people were trained to collect and document their own experiences and understanding of climate change and mobilise action through creative media such as photo-based video, narration,

and music. Adult researchers, along with child-centred implementing organisations (e.g., Save the Children, UNICEF, Plan International, and World Vision) provided technical support and reflected upon how the project went about, their challenges, and lessons learned. Young people have also been involved in consultations to share insights on their experience of climate change and role in driving action in Asia and the Pacific (Lawler and Patel 2012).

These studies and their findings show young people are already taking climate action at different scales, whether through personal behavioural change or at the community level, and through different formats, in research, activism, volunteer activities or livelihoods. They also highlight the role of key international actors, such as child-centred NGOs such as Save the Children, Plan International, and World Vision, in working with in-country partners and actors. Key lessons and best practices drawn from the literature and wider knowledge base are discussed in subsequent sections.

Climate change and health

There is limited available information on young people's engagement at the intersection of climate change and health. Young people tend to be more active in environmental sustainability and protection than in climate change and health, though climate change and environment-related engagement may indirectly have a health component or outcome. Research has also paid more attention to the impacts of climate change on young people's health and wellbeing, rather than their engagement in addressing such issues.

In Bangladesh, the government has worked with young people to address health impacts of climate change, but the engagement was short term and at surface level (BD KII8, KII7). In Vietnam, leaders in the health sector have not yet paid adequate attention to the impacts of climate change, while health research related to young people focuses more on psychological health, violence and sex education. These factors challenge engagement at the local level.

Yet, in Ethiopia, population, health, and environment (PHE) projects have been active in this area (Box 1). Several NGOs, such as Frankfurt Zoological Society, have implemented PHE projects with young Ethiopians, linking environmental preservation with reproductive health solutions while empowering a new generation. PHE, however, do not always address climate change specifically.

Box 1. The Population, Health and Environment approach in Ethiopia

Population growth has adverse impacts on the environment, which in turn worsens health and well-being. Recognising this complex relationship, Population, Health and Environment (PHE) is a multi-sectoral approach that addresses issues like poverty, food insecurity, and reproductive health, while managing natural resources in a sustainable manner.² PHE projects help young people in rural communities lead sustainable livelihoods. Ethiopia and Kenya, as well as Uganda, Rwanda, Tanzania, Nepal, and the Philippines are some countries at the forefront of PHE.

In Ethiopia, the Population, Health and Environment Ethiopia Consortium (PHE EC) is a local civil society consortium founded on the PHE approach with a mission to 'contribute to sustainable development in Ethiopia by promoting and enhancing the integration of population, health and environment.'³ PHE EC aims to help vulnerable communities address both climate change and environmental sustainability issues and sexual and reproductive health rights.

As a member of PHE EC, the Gurage People's Self-Help Development Organization (GPSDO) exemplifies how PHE can be integrated with young people's empowerment. Based in central Ethiopia's Gurage Zone, GPSDO engages young people to address Gurage's high poverty rate, public and reproductive health issues, and land degradation. GPSDO ingrains PHE thinking through peer education and club discussions that proactively connect health and well-being to environmental conservation. It raises health and environmental awareness through school and out-of-school PHE clubs. Working with local authorities and communities, GPSDO helps young people earn incomes through sustainable beekeeping and tree planting while protecting over 200 hectares of land. Under GPSDO's coordination, young people in Gurage are actively managing 20 community nurseries and 125 beehives and have planted 1.2 million seedlings and 300 hectares of grass to prevent erosion.

Outside of these activities, young people share knowledge about modern contraception, reproductive health and sustainable practices framed by the PHE approach with their parents and neighbours, multiplying the impacts of GPSDO. The PHE approach and GPSDO's programmes prove the connection between environmental sustainability, livelihoods and health as an effective avenue for engaging young people. It is now being replicated in other parts of Ethiopia.

² Population, Health, & Environment Approaches: Enhance Youth Leadership & Development. https://thepaceproject.org/phe-youth/index.html

³ Profile. PHE Ethiopia. <u>https://phe-ethiopia.org/wp-content/uploads/2020/10/PHEEC-Profile-1.pdf</u>

Policy contexts

Regional and national policies play an important role in young people's engagement. Policies in all six countries give little attention to the links among health, climate change and young people's engagement. Some policies factor in the health impacts of climate change on young people or mention the roles of young people in protecting the environment, but most still see young people as a vulnerable group in a changing climate. The policies provide little details as to how young people can act on climate and health issues. The section provides a regional analysis, while a more detailed description and discussion of national policy and governance contexts is presented in the following section 'landscape mapping', with supplementary information found in the report Annex.

Africa

In Kenya, Ethiopia, and Senegal, various legislations, regulations, and policies address climate change, health, and young people. A key gap, however, found through both desk analysis and KIIs, is the lack of a multi-sectoral approach. Even though climate change is often framed as a crosscutting issue, policies give limited attention to the links between the health impacts of climate change and young people.

In Kenya, for example, the government responds to climate change, health, and young people through the enactment of separate legislation, policies, and strategies. Kenya has given prominence to climate change and developed several policies and strategies such as the Climate Change Act 2016 and the National Climate Change Action Plan, among others. However, these policies do not have strong provisions on the engagement of young people. Kenya's Youth Development Policy (2019), as a standalone policy, promotes holistic empowerment and participation of young people. It supports their engagement in the conservation of natural resources and environment, including climate change, without reference to health. Existing health polices refer to challenges such as malnutrition, drug and substance abuse, mental health, teenage pregnancy and poor access, quality and uptake of health services - many of which are high priorities among young people – are explicitly linked to young people in this regard.

In Ethiopia, the government has put in place a National Health Adaptation Plan for Climate Change (2018-2020) with

the primary aim to make the health system more climate resilient. The plan prioritises mainstreaming climate change adaptation in public health programmes, for example by using climate information to predict and prevent climate-sensitive diseases. The plan is a transformative approach to integrating climate and health decision-making. However, it is unclear whether young people were and are being engaged in the formulation and implementation of this plan.

In Senegal, on the other hand, the reviewed policies, as confirmed by KIIs, pay little attention to the role that young people can play in either public health or climate change. Neither do they grapple with the impacts of climate change on health in details.

In general, the policies highlight the effects of climate change and health challenges on young people, with a focus on reducing vulnerability rather than engaging young people. In these policies, young people are listed as one of the most vulnerable groups but without any mechanism for them to participate. Moreover, while policies were developed based on consultations with diverse stakeholders, the role of young people in these processes is not clear.

Asia

Across Bangladesh, Indonesia and Vietnam, several national policies, especially in the environment and climate sector, address health-related climate change impacts. Bangladesh Climate Change Strategy and Action Plan 2009, Vietnam Updated Nationally Determined Contribution 2020, and Vietnam's Third National Communication to the UNFCCC 2019, for example, specifically spell out direct impacts such as water-borne, air-borne, and infectious diseases, as well as indirect impacts through water access and food production and security. A few health policies, e.g., Bangladesh National Health Policy 2008, and Vietnam Health Sector Development Plan 2011, mention climate change and disasters as factors influencing air and water quality, food, shelter, and thus health.

Action plans to address the health impacts of climate change have three main focuses. The first is on health protection, by ensuring food security, access to basic services, and improving health systems. The second aims to improve knowledge on health impacts of climate change, through research and development, education and awareness. The third is about mainstreaming climate change adaptation into the health sector to realise their synergies, which is particularly prominent in Bangladesh NDC and National Adaptation Programme of Action (NAPA).

A few policies refer to young people's role in their action plans, often without detailed implementation schemes. Indonesia's Climate Village Programme and Disaster Resilient Village are strategies that direct engage young people in community-based, participatory efforts in health, adaptation, and disaster preparedness and response. Indonesia NAP 2019 has a health adaptation strategy section that lists young people as a key stakeholder. Vietnam's youth policies outline young people's rights and responsibilities to protect the environment and natural resources, yet without mentioning health. Bangladesh's Climate Change Strategy and Action Plan 2009 aims to build capacity for key ministries, which include the Ministry of Women's and Children's Affairs, and its National Strategy for Adolescent Health 2017 lists as a guiding principle the participation and inclusion of young people without detailed mechanisms for implementation.

Besides the above, most policies, whether on health, young people or climate change sectors, identify young people as one of the vulnerable groups, along with women, people with disabilities, elders, and other minoritised groups. Moreover, the Bangladesh's National Health Policy 2008 is the only one to mention the intersection of age and poverty, specifying poor young people as a vulnerable group; others see young people as a homogenous group. Like in African countries, young people were not involved in the formulation of most policies. Bangladesh's National Strategy for Adolescent Health 2017 is the only one that involved FGDs with young people in its development.

Landscape mapping

This section presents summary findings of the landscape mapping, consisting of both the policy environments and key stakeholders in each country. Supplementary information can be found in the report Annex.

Bangladesh

In Bangladesh, young people play prominent roles in spreading awareness on climate change and health. Local youth groups are leading campaigns and workshops while also engaging with key actors in the non-profit sector, such as ActionAid, World Vision, British Council, Save the Children, as well as UNDP and UNICEF. Over the past years, organisations have gone from targeting young people as beneficiaries to engaging and empowering them as leaders. State actors, such as the Ministry of Youth and Sports, Ministry of Health and Family Welfare, or Ministry of Disaster Management and Relief, have also involved young people, albeit to a lesser extent.

The Ministry of Environment, Forests and Climate Change is a key stakeholder that engages young people in climate matters. Efforts to engage young people in tackling the health impacts of climate change, however, is still limited. While progress has been made in terms of health adaptation planning, as well as through the work of the Climate Change and Health Promotion Unit, young people are not yet involved in these initiatives.

The engagement of a young Bangladeshi is faced with several obstacles. Culturally, there is still a belief that young people do not have the capacity to participate in public matters, and that their focus should be on education and career development. Technically, relevant scientific knowledge has not been made accessible or mainstreamed in school curricula.

Ethiopia

Young people in Ethiopia have started engaging in climate change and health through both formal and informal channels. Government agencies, such as the Ministry of Health and the Ministry of Women, Children and Youth, engage young people in policy processes as well as in campaigns and advocacy activities. Efforts have been made to include young people's voices in the design, implementation, and monitoring of policies, but participation is not yet strong. Young people also participate in programmes led by international organisations, such as the World Food Programme, and local youth organisations, as well as in school-based youth clubs. Informally, at the community level, engagement also takes place through local initiatives as well as through religious institutions. Popular areas of engagement range from reproductive health, nutrition, and infectious diseases to climate-smart agriculture and reforestation.

However, engagement efforts are faced with the lack of training opportunities for young people, inadequate institutional mechanisms as well as the lack of funding and capacity within institutions to engage. In many cases, young people are still seen as beneficiaries of programmes and services rather than active agents. Gender norms are also highly influential, as young men are more present in climate and health engagement than young women.

Indonesia

Creative and technology-savvy, young people in Indonesia are valued for their energy, enthusiasm, and adaptability. Climate change and health actors see their engagement as opportunities to bring in new ideas and share ownership of policies and action. Key government agencies, such as the Ministry of Environment and Forestry, the Indonesian National Board for Disaster Management, and the Ministry of Women's Empowerment and Child Protection, have involved young people in their work through several initiatives, particularly at the village and community level, such as through the Climate Village Programme. Social media, online influencers as well as religious leaders and religious groups are major sources of inspirations and awareness for young Indonesians.

Yet, their engagement in climate change and health remains piecemeal and unsustainable. Government offices have little budget and few programmes to engage young people over the long term. State actors also operate in silos and with little experience working with young people, making it difficult to mainstream and scale up their engagement across sectors. Moreover, while young people are aware of and curious about climate change and environmental sustainability, they lack access to age-appropriate knowledge, hampering effective engagement.

Kenya

In Kenya, young people play a key role in tackling climate change. They represent the largest group of people affected by climate change impacts and its health-related risks. Already, youth-led and youth-focused organisations are active in climate adaptation and mitigation, and working to enhance young people's effective participation. In addition, the Ministry of Environment and Forestry and that State Department for Youth Affairs, for example, have been engaging with young people. Maintaining nurseries and planting trees in school's religious centres and public spaces are popular activities. Funding for young people is also available, such as through the 'Uwezo Fund' – a flagship programme aimed to support women, youth and persons with disabilities to access grants and interest-free loans for businesses and enterprises.

Based on this, deliberate and systematic efforts are necessary to equip and empower young people to realise their full potential and, in turn, achieve sustainable development and other development objectives. Thus far, policies have helped the country achieve several key milestones in young people's empowerment. Their role in tackling climate change impacts on health, however, has not received enough attention in current policies.

Senegal

Young people are already an active force in Senegal's civil society. They are participating in many projects and initiatives around climate change and the environment, engaging both through non-profit organisations as well as youth-led activities. School-based clubs are also among the most prominent approaches to engage. However, in many cases, rather than playing an active role, young people remain an audience or beneficiary of those efforts.

Key stakeholders in climate change and health include the Ministry of Youth, Ministry of Health, and the Ministry of Environment and Sustainable Development. The most prominent domain in which young people are engagement, however, is in civil society spaces, embodied by the work of the youth environmental volunteer group, Jeunes Volontaires pour l'Environnement (JVE). To date, policies and decisionmakers, particularly on the health side, have largely overlooked the role of young people.

While young people are proactive and ready to engage, their participation is still limited by the lack of relevant training and information and the means and channels to participate. This leads to the perception of adults that young people lack the awareness and capacity to engage and the lack of interests from institutions and organisations.

Vietnam

In Vietnam, young people's engagement is a priority for state and non-state actors alike. Most engagement activities take place at schools, where the Youth Union is a key actor, with support from government offices, such as the Ministry of Education and Training, the Ministry of Natural Resources and Environment, and their line agencies. NGOs and UN agencies are perceived as most active, with many projects and programmes involving young people in climate and health. International organisations are seen as more powerful and influential, thanks to their international network and presence.

Major factors that influence young people's engagement include language, urban-rural divide, gender, and economic background. More efforts are needed to engage vulnerable and minoritised groups, such as young people in remote, mountainous areas and ethnic minorities.

The implementation of policies targeting young people engagement is limited by perception and biases against young people. When it comes climate change, the lack of awareness on climate change in the society makes young people's engagement even more challenging.

Young people's engagement in climate change and health

Forms of engagement

While policies for young people's engagement in climate change and health may be lacking, past and ongoing initiatives in all six countries can teach critical lessons. There are currently three major forms of engagement: engagement led by young people, engagement facilitated by the state, and engagement facilitated by non-state actors. These approaches, however, are not mutually exclusive. In many cases, an NGO or UN agency may partner with a state-sponsored youth group, and a government department may help found a club or organisation to be run by young people themselves. Less common is when youth groups approach governmental and non-governmental institutions with their needs and are supported.

Engagement in activities or organisations led directly by young people can take the form of:

- A youth-led group, organisation, or club, such as the African Youth Initiative on Climate, Green Africa Youth Organisation, Nyalenda Young Turks (Kenya), YouthNet for Climate Justice (Bangladesh), Green Eye (Vietnam) and Bale Beauty Nature Club (Ethiopia), which can be standalone, or housed under a school, university or organization.
- A social enterprise, start-up, or business run by young people, such as Kenya's Takawiri Craft Enterprise – a small business turning hyacinth, an invasive species putting local livelihoods in increasing risks under climate change, into stationery and craft, Indonesia's Family Farm Lintau – an educational agritourism business empowering local young people, and Vietnam's Golden Grass Straw – a youth-led enterprise producing and selling eco-friendly grass straws.
- Event-based activism such as climate marches and strikes, such as Kenyan students' march to the Karura Forest to demand action on climate change in March 2019.
- Climate litigation, in which young people hold governments and the private sector accountable, demanding action to reduce greenhouse gas emissions, deforestation and suing government for inaction on climate change (Asian Development Bank 2020).

The second type of engagement is facilitated by the state. Examples include youth organisation, such as Vietnam's Ho Chi Minh Communist Youth Union - the youth branch of the Communist Party. The Green Kenya Initiative, a large-scale campaign promoting green technologies and green jobs for young people, and the 'Uwezo Fund' grants and interest-free loans programme for youth groups exemplify governmentsponsored initiatives in Kenya. In Ethiopia, engagement may also take the form of food for work programme by the regional bureau of agriculture, which engages young people in natural resource management activities, or policy consultations with representatives of regional youth federations. It is also noted that in certain cases youth organisations sponsored by the government may be stifled in terms of their freedom to express ideas and opinions (Amponsem et al. 2019). In Vietnam, for example, an informant found the contribution of young people through the Youth Union to be not as strong as other "informal groups" such as student-run clubs or NGOsponsored groups (VN KII8).

"Today, the most active movements and networks are the youth networks [...] Those who make things happen, those who organise big reforestation campaigns, those who advocate around [...] the sale of the coastline, the problem of trees and all that, it is the youth. Young people are at the heart of the commitment to the environment."

Youth engagement stakeholder, JVE, Senegal

The third type of engagement is led by non-state actors, such as research institutes, NGOs, CSOs, or inter-governmental agencies. These include both short- and long-term projects by child-focused organisations, e.g., UNICEF, ChildFund, Plan International, World Vision, or Save the Children, which engage young people most often. Other development actors with interests in environmental sustainability and climate change are also involved, such as UNDP, FAO, USAID, Red Cross, and GIZ, among others. National/local NGOs and community-based organisations play a key role connecting with young people on the ground.

Focus of engagement

Whether young people are leading efforts by themselves or working with the government and other organisations, engagement often focuses on increasing awareness, decision and policy making, and concrete action to address climate change and health.

Awareness and advocacy

One of the most popular youth activities in all six countries is raising awareness and advocacy. These initiatives teach young people about environmental, climate change and health issues, and inspire behavioural changes both among those who participate and their audience.

The most frequently cited example is competition. School and university students often participate in drawing, essay writing, MC'ing and English-speaking contests as well as creative performances, such as skits, poetry, literature, music, demonstrations, drama, and sports. They are organised around climate or health themes like climate change adaptation, reproductive health, mental health and so on. These activities help young people explore and communicate complex topics in more relatable ways and attracts the attention of their peers. They are one-off or annual events and can be organised either by young people themselves or schools and other organisations.

Competitions can also be organised among schools. In Turkana, Kenya, for example, the Children Service Department held a contest among schools to take care of plant nurseries while teaching students about environmental conservation and GHG reduction. As part of the initiative, young people joined field days and learned about climate mitigation technologies and drought-resistant plant varieties (KE KII1, KE KII4, KE KII16). "We have started doing a lot of work with young people and with adolescent girls. Last year we did creative theatre. It was very interesting to hear what their perspective were around climate impacts and to have them write stories, do poems and theatre around climate actions and climate impacts [...] It is very interesting just to hear the voice of a young person [...] trying to contextualise it to her situation in Turkana."

Climate change researcher, Cheikh Anta Diop University, Kenya

Young people also raise awareness by creating communication materials, participating in workshops, facilitating dialogues, or running campaigns (e.g., Box 2). Activities can be online, through social media or community radio, or in-person, using posters, videos, or flash mobs. A workshop organised by BRAC University in Bangladesh, for example, brought together young climate fighters from the coastal region and their peers across the country. They connected with each other and shared experiences of climate change and successful adaptation efforts (BD KII13). In Kenya, young people have created documentaries to share information on climate change to their peers and community members in the library (KE KII25), while youth community dialogues are regularly organised by Jijenge youth group, Ramina Foundation and Meta Meta (KE KII34). In Ethiopia, the NGO Bale Beauty helps young people facilitate dialogues and peer-to-peer discussions on topics related to environmental protection and reproductive health (ET KII16).

Box 2. Youth-led advocacy in Vietnam

Mat Xanh, or Green Eyes, is a youth group under the Youth for Environment project of the For Vietnamese Stature Foundation, dedicated to environmental advocacy and raising awareness on climate change, pollution, loss of biodiversity, and other environmental issues.⁴ During the flood seasons, Green Eyes has also fundraised to help the hardest hit communities in Central Vietnam.

Green Eyes maintains a network of almost 200 young people who are passionate about the environment and climate action. To build capacity for members, the group organises regular training and seminars, inviting experts in advocacy, journalism, writing, and communication. Through these events, the members learn important skills for future activism while also networking with key actors in the country.

Green Eyes is known for creative media products in their campaigns and fundraising activities. As part of a campaign on waste, the group created a video called "Two million tonnes of garbage," based on an original rap song that was already viral among Vietnamese young people named "Two million years." To mobilise support for flood-prone communities, Green Eyes launched a music video "Central Vietnam, please stop raining" with the participation of young people from 20 provinces over the country. Green Eyes took charge of production from ideation to implementation and monitoring. The videos reached thousands of young Vietnamese and mobilised significant support for vulnerable communities.

Training is another tool to raise awareness. It may be organised by adults to inspire and enable further engagement or youth groups themselves to build capacity. For example, in Bangladesh, a campaign was launched to encourage young people to learn more about the root causes and impacts of air pollution, while also inspiring them to come up with new solutions and implement their own campaigns to follow (BD KII4). In Kenya, Bungoma Youth Connect and Mabanga Agricultural Training Centre engage young people through training on tree nursery management, entrepreneurship, and social media engagement. Through these activities, young people earn incomes and conserve the environment while exchanging knowledge (KE KII2, KE KII13). Decision-making and policy engagement

Besides awareness and advocacy, young people also participate in decision-making and policy processes. In some cases, their inputs are sought by the government, while in others, young people actively inform policy processes and outcomes. Examples of consultation with young people include the development of a new national adaptation plan in Bangladesh, which aims to be youth friendly. As part of the plan formulation, BRAC University has engaged young people to understand their concerns as well as roles they can play in its implementation (BD KII13). In Kenya, the Ministry of Public Service, Youth and Gender has also consulted young people in the drafting of the national climate policies (KE KII25).

Through youth-led initiative participation, young people may also actively organise themselves and communicate their opinions to decision-makers. In Bangladesh, the Bangladesh Model Youth Parliament has been gathering policy inputs from young people through youth-led meetings. Key messages consolidated from these meetings would be delivered to local and national authorities by the group's representatives (BD KII7). In Kenya, similarly, the African Youth Initiative on Climate Change consolidates reviews and inputs from young people to inform national policies on climate change (Box 3).

Box 3. Youth network and policy engagement in Kenya

The African Youth Initiative on Climate (AYICC) is a network of young people founded in Nairobi, Kenya in 2006, just before COP12. With over 10,000 members in 42 countries, AYICCC is a continental platform where young change-makers share ideas and best practices to create awareness and adapt to climate change (Benkenstein et al. 2020).

In Kenya, AYICC regularly host chats on Twitter, where young people discuss climate change and related topics. In 2020, a climate debate brought together young experts who shared ways to enhance climate mitigation ambition for Kenya. The conversation delved into the national policy context and pointed out policy and implementation gaps in Kenya's climate change approach (KE KII34).

AYICC has also collaborated with the Kenyan Ministry of Forestry and Environment, Kenyan National Youth Council, and other youth organisations to feed young people's input into the latest versions of the Kenyan National Climate Change Action Plan. Similarly, young people's voices were brought to the State Department for Youth Affairs to inform the country's NDC formulation process thanks the AYICC's coordination. Through this platform, young people were able to express their views on climate change issues and how they wished to participate in implementation.

Awareness-focused engagement may also have a policy impact. For example, in Vietnam, UNICEF ran workshops and consultations to teach young people communications skills, which enabled them to tell their own stories and share views and concerns about environmental issues and young people's roles in it. This initiative led to the incorporation of the child rights approach into Vietnam's National Law on Environmental Protection in 2014 (UNICEF, 2015). More recently, the UNDP-led Youth4Climate initiative organised a COP26 Simulation. Through training and mock sessions, young people learned about global policy and negotiation processes, as well as different countries' goals reflected in the NDCs. In Kenya, the Devolution and Climate Change Adaptation (DACCA) programme, which aims to strengthen the civil society's role in adapting to climate change, involves young people in training and discussions on both how to advocate for climate adaptation and how to engage meaningfully in decision-making. These activities prepare the generation for future policy engagement.

Climate and health action

Not only are young people engaging in advocacy activities and policy processes, but they are also directly taking part in in adaptation and mitigation efforts, the at the personal, community and higher levels. Already, in all six countries, young people are acting every day to protect the environment and encouraging those around them to do the same. Many are picking up green, sustainable lifestyles by avoiding plastics and switching to environmentally friendly transportations. Others are involving and even leading in activities such as tree planting and reforestation, land and water management, and saving energy. Overall, these activities reflect a higher level of awareness on environmental sustainability in general than of climate change specifically.

Young people are also engaging through community-based, climate and health resilience building initiatives such as the Kampung Iklim Programme (Climate Village Programme), Community Service Programme, and Green School Program (*Adiwiyata*) in Indonesia (Desfandi et al. 2017). In Kenya, the Young Women Christian Association (YWCA), which funds youth-led climate action projects in 20 countries around the world, recently launched a project unlocking the bamboo value chain, training young people to make and market bamboo products (World YWCA 2021).

Schools across the six countries have also carried out urban agriculture, school gardening, and climate-resilient gardening initiatives (e.g., Box 4). Through these activities, students are involved in growing trees and vegetables while learning about climate change, environmental sustainability, and food security. In Kenya's heavily polluted areas, Ecological Justice has planted bamboo and whistling pines and set up community resource centres and eco-schools with forest areas and carbon sinks (KE KII25). In Ethiopia, World Food Programme provided capacity and tools to help establish school gardens and trained teachers to integrate gardening activities in the curricula.

Box 4. Tree planting and environmental education in Senegal

Situated in the semi-arid Sahel region, Senegal is particularly vulnerable to the impacts of climate change on farming livelihoods, food security and health and well-being. As the future leaders of the country, Senegalese students are learning about sustainable agriculture and environmental protection while engaging in tree planting activities at school through several initiatives. For example, international NGO Trees for the Future organised greening day through which high schoolers planted trees in their own schoolyard and joined film screening about urban agriculture and the role of trees in combating environmental challenges.⁵

The Eco-citizen Network has also set up environmental clubs in schools across the country to educate young people and encourage peer learning and engagement on environmental and climate change topics (SN KII8). Through these initiatives, young people have started engaging in concrete actions since an early age and become aware of climate change challenges right at school.

On the health side, the most common areas that young people engage in are sexual and reproductive health, water, sanitation, and hygiene (WASH), and communicable diseases. In Kenya, as part of the Sustainable Sanitation and Hygiene (SSH4A) programme, for example, young people build and sell climate-resilient latrines in Homabay and Turkana Counties and actively engage in the monitoring and evaluation of the programme (KE KII11). In Robe Town, Ethiopia, UNICEF is partnering with the Woman and Child Affairs Office to train young people to join community watch, promote good practices and report issues related to reproductive health, early marriage, and child abuse (ET KII2). Through the Young People Volunteer Club of Red Cross, Ethiopians also participate in a wide range of environment and health activities, including disaster response, COVID-19 response, first aid and emergency response, communicable disease prevention, and so on (KII23). In Senegal, many informants cite young people's engagement at the community level in distributing masks during the COVID-19 pandemic and bed nets to fight malaria. As such, young people's engagement in the health sector tends to respond to matters with direct impacts, and sometimes survival matters, for themselves and their communities.

Power and agency

Such rich and diverse forms and focuses of engagement suggest that young people have unique powers. Indeed, interviewees across countries see young people and youth groups as an active, important, and influential stakeholder group in climate change and health.

When asked about the benefits of working with young people, over 75% of survey respondents found young people's fresh perspectives and unique skills an advantage (Figure 6). KII respondents confirmed by highlighting young people's ability to adopt new technologies, along with a high level of enthusiasm and excitement. A Bangladeshi informant shared that, compared to NGOs, international organisations, and

⁵ Greening Day in Dakar Engages High Schoolers in Tree Planting. Trees for the Future. https://trees.org/post/greening-day/

government departments with more resources, youth organisations and youth groups were playing a more active

role in advocacy and activism; they are ahead of others with new ideas and readiness to make change (BD KII9).

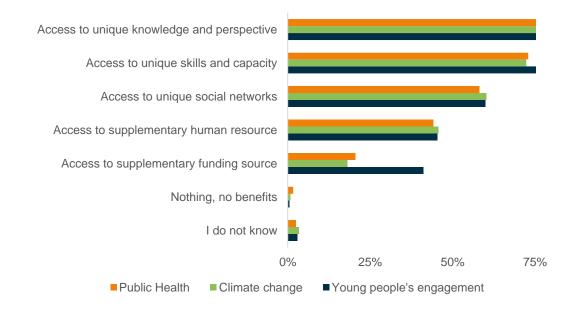


Figure 6. Benefits of engaging young people identified by actors in health, climate change and young people's engagement sectors through online survey (N=519)

Their power also comes from a desire to contribute to the society. In FGDs, young people expressed the wish to spread knowledge, contribute to the community, and do good for the society. Wanting to be "helpful" and "meaningful" to the people around are often cited as the key motivation. When asked what roles they wanted to play in future climate change and health activities, young people expressed interests in diverse activities, from leading and coordinating to mobilising, advocacy and concrete actions.

"Raising awareness on climate change or disaster risk management issues is one matter. Young people don't keep their knowledge to themselves. Whatever they get from training, newspapers or the internet, they disseminate to make a resilient community."

Climate change researcher, BRAC University, Bangladesh

In addition, young people are also strong at using their social network to increase awareness and advocate for change. Sixty percent of survey respondents saw young people's social network as a unique benefit. Young people do not only apply the knowledge gained through engagement, but they also scale it up by talking to local governments, and sharing with friends and families, including minoritised groups who may not have access to such information. Equally important is giving young people agency to act on their power. Most survey respondents suggested that it is most effective for young people to be the lead or co-lead of activities, and the more agency in the design and implementation the better (Figure 7). In many projects, young people play a key role from the very first step of designing, to implementing, following up and monitoring – they have the full power and agency. This is crucial to the outcome of the project, as shared by a Vietnamese informant: "It's hard for me to design the right activity, I won't understand what the young people want and what form attracts them. Their role is huge and involved at all stages" (VN KII8).

Even when given agency, young people continue to engage with adults. They actively reach out to experts in the field as advisers and counsellors, who share experience and knowledge as well as networks and connections to help young people implement their programmes.

Furthermore, projects often combine approaches to engaging young people, allowing different levels of agency at each stage of implementation. This means that, for example, a programme can start with a training component where young people receive orientation and guidance to implement activities, until they are able to come up with and implement their own ideas. The role of adults diminishes gradually while young people's agency and initiatives increase over time. One project in Vietnam involved in intermediate step, in which older members of a youth group, once trained and experienced, started to take a lead role in managing and

coordinating younger members, and gradually built the capacity to take on full leadership (VN KII13).

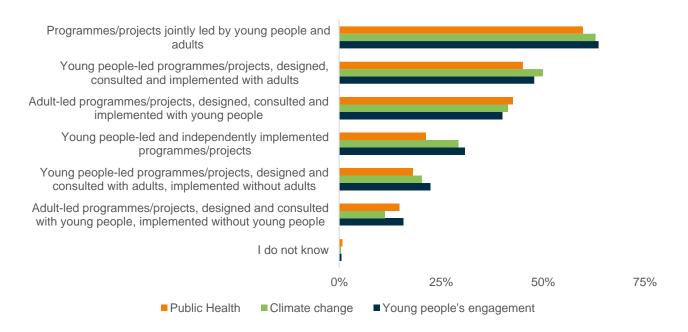


Figure 7. Effective approaches to engaging young people identified by actors in health, climate change and youth engagement sectors through online survey (N=519)

Factors that impact engagement

Despite great potential, young people may not have equal access to opportunities and the space to practice their power and agency. This section discusses several important factors that shape the effectiveness of young people's engagement, specifically language, gender, economic background, age, ability, and geography.

Language

In many places, engagement with young people often takes place in official languages, leaving out people in remote, rural communities, and ethnic minorities who may use a different language or dialect (Morrissey et al., 2016). In Vietnam, for example, people of ethnic minorities speaking different dialects and languages have fewer opportunities, even though they are actively making changes and adapting to climate change in their daily lives. Training and advocacy materials about climate change are often in Kinh Vietnamese, the majority language, and are inaccessible to young people of ethnic minorities or illiterate people (Hoang 2021). Similar challenges were also brought up by Ethiopian and Senegalese informants.

Furthermore, climate change information is more available in English rather than Bahasa Indonesia, Vietnamese, Bengali, Amharic, and other local languages and dialects. Hence, opportunities are more accessible to young people with English capacity, which depends on access to education and is different among groups according to socio-economic background. One interviewee noted that "usually when they have enough English knowledge, they will often participate in this field (climate change), because in this field, I find it necessary to have access to foreign language documents and media channels" (VN KII10).

Geography

Young people in urban areas are more likely to participate than those in rural areas, due to easier access to services, information, and opportunities in cities. Young people in urban settings also tend to be more confident, have more experience expressing themselves in public, and better access to technologies than those in non-urban areas (Hoang 2021; UNDP et al. 2020). In agreement, one informant in Kenya noted the difficulty of engaging young people in rural areas through online platforms, as those regions are less equipped technologically than urban settings (KE KII34). This observation was also shared by several Vietnamese, Senegal and Bangladeshi informants.

There is also a disparity due to different levels of social development. A Vietnamese informant highlighted that, leaders in provinces that are exposed to diverse social issues are likely to engage and listen to young people. In comparison, the authority in less developed parts of the country may even view child's rights negatively. According to her, "when we mention anything related to "the right" [of a

child], they will consider it something very sensitive and it is difficult to implement any activity concerning child's rights" (VN KII3).

In Indonesia, young people in Java have a better education system, thus, are more conscious of environmental and climate challenges and participate more than those in remote islands. In Central Java and Yogyakarta, religious and cultural beliefs are further factors driving engagement, while young people in coastal regions engage depending on their economic background (ID KII7; ID KII13).

Interestingly, in Vietnam, several informants also suggested the reverse, that urban young people have fewer opportunities to engage in climate change. This is because development programmes and projects tend to target poor communities and ethnic minorities, while young people in cities are seen as having "enough abilities" and thus "unintentionally they are neglected" (VN KII13). This applies particularly to engagement efforts led by international and development actors.

Gender

Evidence suggests that young women are more likely than young men to be concerned about climate change, due to differences in value and commitment to social issues (UNDP et al. 2020; UNICEF 2021). KII informants confirmed this observation, indicating that in many engagement initiatives women tend to be more active and present.

Results from KIIs also suggest, however, that gender interacts with other geographical and social factors in shaping young people's engagement. For example, young women are more involved in climate change activities in urban contexts than in rural contexts. In both Vietnam and Bangladesh, there is still a strong belief among rural and remote communities that women should get married and have children early, while men are encouraged to engage socially, leading to a gender gap.

In Bangladesh, in places outside of cities, due to safety and security concerns, it is harder for women to go out and participate in public matters (BD KII3). One reproductive health initiative in Vietnam, while trying to reach out to and work with ethnic minority women, accidentally became engaged with adolescents because of the prevalence of child marriage and early pregnancy among ethnic minorities (VN KII13).

Gender norms also prevail and influence the level of engagement in African countries. In Kenya, in some communities, women and girls are not allowed to participate in certain community activities like tree planting because it is classified as men's work (KE KII9). In Ethiopia and Senegal, similarly, strong gender norms around the role of women in the household lead to lower level of engagement among young women, compared to young men.

Age

Different age groups may also have different priorities. In Vietnam, high school students of age 14-18 have little time outside of school and limited support from teachers and parents to engage in extracurricular activities, as academic performance is deemed the main priority (Hoang 2021). Several youth leaders in Vietnam and Bangladesh shared that often young people who are in universities are most actively involved in activities due to their defined interests and time availability. It should also be noted that graduating students and young adults are also likely to be occupied with employment and career development, thus, may have little time to commit to climate change engagement.

Interests in engagement activities differ among age groups. In Senegal, for example, informants of age 18-25 were ready and determined to participate in climate action: "For me, the youth should be the organisers, not guests [...] Make me a leader in the activity, give me financial means and I will do a good job" (SN FGD8). Comparatively, younger informants, particularly those of age 10-13, tend to express interests in getting access to information, ideas, and knowledge in order to develop a better understanding of climate change and health before taking action.

Different abilities

Young people without disabilities, according to a study in Malaysia, are more likely to be concerned about climate change and more optimistic about their ability to create change than those with disabilities (UNDP et al. 2020). Indeed, several KII informants reflected that young people with disabilities are absent in climate change activities. This may result from a failure to consider and include the needs of people with disabilities rather than a lack of interest from young people themselves.

There are, however, existing initiatives that focus on young people with different abilities. In Kenya, the Trans Nzoia Youths Living with Disability is a community-based organisation working to empower young people and women with disabilities. Young people in Trans Nzoia County are taking climate action through planting trees in their own communities (KE KII31).

Other social and economic factors

When asked which factors influence the engagement of young people in climate and health, many KII informants believed that economic status plays a key role. Poor young people are less likely to engage, as they may be more occupied with earning a livelihood than volunteering in climate change activities. Moreover, better-off households can afford better education, which can translate to higher awareness, better capacities, and more opportunities to engage. However, this may only reflect informants' perspectives, i.e., the understanding of climate change engagement among young people as volunteerism or a luxury. Certain forms of climate change engagement, however, come with co-benefits and generate incomes.

Furthermore, activities that target young people are often designed with school and university students in mind. Fewer opportunities are available young people who are not in school, such as young farmers, young workers, young civil servants, as well as young mothers.

Interestingly, health can also be a factor influencing young people's engagement. Ethiopian informants listed drug and substance abuse as a factor that prevents young people from taking part in environmental and other activities. The risks of such health challenges also increased under the impacts of climate change and climate-related disasters, making young people's role in the intersection between climate change and health even more important, yet complex.

Child-focused NGOs, in some instances, funnel opportunities to pre-existing network or certain geographic areas where they operate. For example, in Indonesia, as climate change knowledge is not yet part of the national curriculum, awareness depends on teachers' knowledge or comes from external projects, such as UNESCO's Adiwiyata Green School Programme with a focus on greening school curricula and policies. However, most NGOs work in Eastern Indonesia, making information less accessible to young people in other parts of the country.

In Bangladesh, coastal flooding has been attracting a lot of attention, and thus, more efforts are targeting young people in flood-prone coastal zones. Young people there are more aware of climate issues and involved in climate change activities than those elsewhere. As a result, other vulnerable districts outside the coastal zones are being neglected, as there are less funding and fewer projects addressing their needs (BD KII13).

Barriers to effective engagement

In addition to socio-economic factors that differentiate groups of young people, their engagement is also challenged by structural, organisational, and financial barriers, access to information and resources, and social norms and cultural perceptions. In response to a question concerning this issue, most survey respondents identified the lack of resources to work with young people and act on their ideas as a barrier (Figure 8), suggesting the role of provisioning adequate resources to ensure young people's ideas and voices are not only heard but also materialised. It is, however, also intertwined with other constraints, as discussed below.

Structural

It is hard for young people to engage when policies and strategies are not accessible to them, and institutional

mechanisms are not inclusive (Benkenstein et al. 2020; SLYCAN Trust 2020). This is the result of many policy- and decision-makers viewing young people as passive victims. In certain cases, even when there are institutionalised channels to participate, engagement can be bureaucratic or tokenistic (Amponsem et al. 2019; SLYCAN Trust 2020).

In Bangladesh, for example, while the youth policy outlines the cooperation between the government and young people in tackling climate change, the annual budget only allows a one-off training session in which young people attend a lecture (BD KII7). In Kenya, Youth Development Policy highlights the role of young people in protecting natural resources and tackling climate change, yet its implementation is similarly faced with inadequate budgets.

Furthermore, the structural shortcomings also contribute to the lack of synergy and collaboration between different actors in climate change, health and young people's engagement and the continuity of programmes and efforts, as highlighted by Ethiopian informants.

Organisational

A significant challenge to young people's engagement in climate change and health is the lack of capacity within institutions and organisations to engage young people. This may stem from a lack of interest in engaging young people, which is a long-term commitment without immediately visible outcomes and impacts. Organisations, thus, may not find it strategic to integrate young people's engagement in its structure, operation, and capacity development plans for staff members.

Allocating resources and building capacity to work with young people are important as they have different ways of working and thinking. Projects and programmes designed without indepth understanding and prior experience of working with them often turn out to be ineffective. For example, an Ethiopian informant noted the importance of knowing how to coordinate young people and how to cope with high turn-over rates as young people may stop engagement due to employment opportunities.

This appears to be a particular challenge in the health sector, whose work involves young people frequently but only as patients and beneficiaries. A Vietnamese informant believed that even if a health organisation is interested in a participatory approach with young people, it is "impossible" to engage them in the health system (VN KII13). In Ethiopia, similarly, there are few sustainable mechanisms to involve young people in discussions about health, who are often seen just as patients. An informant cited, "young people come to health facility when they are sick. In general, the young people area the missed opportunity" (ET KII18).

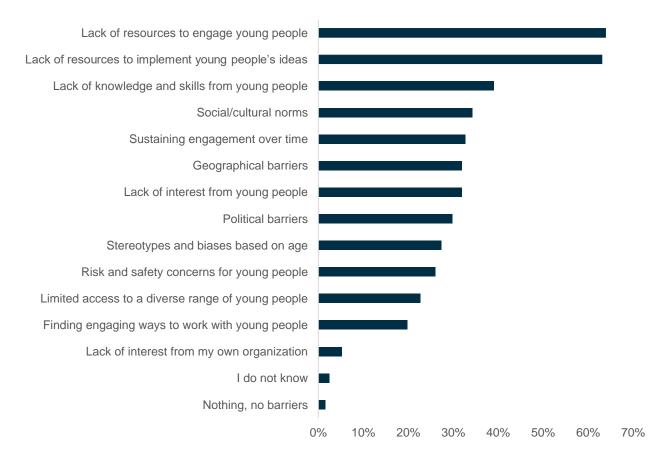


Figure 8. Barriers to working with young people identified by online survey (N=519)

Financial

Access to funding is a great challenge facing youth groups in all countries, partly due to the lack of effective institutional mechanisms. Without recognition and formal channels to participate, young people have neither allocated budget nor legal status to fundraise; they are left with few options to finance their ideas and plans.

In Bangladesh, for example, the national budget only allocates a small amount for young people's engagement, which often goes to general capacity development leaving almost no money for climate change engagement (BD KII7). As a result, youth groups often must depend on funding through non-governmental sector. This can be undesirable, as a youth leader in Bangladesh shared that they are often treated as "vendors", i.e., funding recipients or beneficiaries, rather than strategic partners (BD KII7).

Financial constraints, however, also result from young people's lack of experience and skills in fundraising, budgeting, and financial management, making training and access to knowledge crucial.

For engagement led by international or non-profit organisations, many initiatives are project-based. An Ethiopian highlighted that climate change adaptation is a long-term commitment, yet existing initiatives often lack longterm incentives for young people to engage. This brings into question the sustainability of the engagement of young people at the end of a funding cycle (Krishnamurthy et al. 2020).

Furthermore, donors tend to have specific visions for the outcomes of the funded projects or desirable topics to be covered, which could have implications for the nature and quality of young people's engagement. Young people's roles may lead to divergences away from donors' expectations, but often reveal important insights (Haynes and Tanner 2015). In Senegal, even when an organisation was interested in engaging young people in climate change and heath, the lack of funding for the topic meant that they had to dilute and soften the message to cater to the interests of donors (SN KII3).

Access to information and other resources

Young people may care about the environment and climate change as well as their health and well-being, but do not know where to start, what they can do to make a difference, and where to access information and training. As previously mentioned, in non-English speaking countries, there is less information available in local languages. Information in English also tends to be global and international in scale and relevance, and there is a need to translate it through local knowledge.

Moreover, climate change information is often in the format of scientific knowledge and in a language inaccessible to most young people. Research findings in academic journals do not effectively reach young people. Young people tend to grasp actionable messages about the environment (e.g., using less plastic and planting trees) more easily than technical and jargon-heavy communication about climate and disasters.

During FGDs, young people were able to list some of the impacts of climate change, and its causes and solutions, yet very few were able to articulate coherently their linkages and connections.⁶ A Bangladeshi informant indicated that climate change is not a public interest, but a scientific issue: "It is so scientific, there are so many difficult words in it, there is not much content in Bengali, there is no good training, there is no funding. So those who will work on this at the field level, they do not have enough knowledge" (BD KII7).

In-depth and systematic understanding is key to effective ideas and solutions. Otherwise, as an Indonesian informant suggested, any interests in engagement may backfire:

Youth-friendly communication is, thus, needed to build awareness, as a foundation for engagement. An informant from Kenya suggested, for example, that complex climate change information can be communicated to young people through songs, graphics, or drawings (KE KII25). Such media are also friendlier to young people with no formal education and other community members. Ethiopian informants also recommended more engagement between academics and young people, such as through short videos and lab visits, among others.

"These driving factors (for engagement) [...] come from the awareness and curiosity of young people; but if this awareness is not accompanied by good knowledge, it will end up in stress and complaints. Good awareness accompanied by quality knowledge will lead to real movements."

Climate change researcher, University of Indonesia, Indonesia

Additionally, KII informants across all six countries raise the concern that currently, climate change and its health impacts are not part of the school curriculum. Young informants in FGDs shared that they learn more about climate change issues through engaging in clubs and activities by NGOs than through textbooks and courses.

As a result, in many cases, only those who study and work in the health or environment sectors are interested in participating. In response to this challenge, country governments are making efforts to integrate climate change education in its national curricula (Box 5).

⁶ It should be noted, however, that the study was not designed to assess how well young people understand climate change and its impacts on health. This is an observation based on the FGDs, which included warm-up questions about climate change knowledge.

Box 5. Snapshot of climate change in school curricula in the six countries

In **Bangladesh**, the National Education Policy 2010 requires some subjects to emphasise climate change. The National Adaptation Programme of Action 2005 requires climate change to be included in secondary and tertiary education. While there is little information on the status of the implementation of these policies, a curriculum on climate change developed by CARE Bangladesh has been integrated into secondary science and geography textbooks (UNESCO 2015).⁷

In **Ethiopia**, recognising limited climate change content in its current curricula, the Education Sector and the Environment, Forest and Climate Commission have adopted the National Climate Change Education Strategy (2017-2030), with the support of UN CC:Learn. The Strategy was followed by a curriculum reform in 2019 to integrate climate change into primary and secondary curricula, which involved the development of a guideline for curriculum developers as well as training for textbook authors.⁸

In **Indonesia**, climate change is not yet a part of the national curricula. However, there have been efforts to raise awareness and build capacity for teachers on the topic of climate change. The Ministry of Environment and Forestry, with the support of UN CC:Learn and the National Council on Climate Change and Clean Development Mechanism of the Dominican Republic, organised trainings for teachers, from primary to high school level, to learn more about global warming and climate change, climate change teaching and integrating climate change into the national curriculum.⁹

In **Kenya**, the National Climate Change Framework Policy and the Climate Change Act 2016 require climate change to be a core subject of the national education curricula. In response, the Ministry of Education has introduced "Environmental Activities" as a new subject, and the Ministry of Environment and Forestry has developed a guideline to help curricula developers integrate climate science into the education system – the 'Guidelines for Mainstreaming Climate Change in Curricula At All Levels of Education and Training 2020'.¹⁰

In **Senegal**, there is little information on state-led efforts to mainstream climate change education into school curricula. NGOs, meanwhile, are leading initiatives to increase environmental awareness through education, such as World Food Programme's project to integrate school gardens in school curricula.

In **Vietnam**, climate change education was set forth in the Action Plan for Response to Climate Change of the Education Sector 2011-2015. The Plan aimed to educate teachers and lecturers on climate change and build in climate change information in all curricula, textbooks and reference materials (UNESCO 2015).

Social norms and cultural perceptions

In many cases, adults see young people as victims rather than agents of change. Interests and initiatives from young people are often not met with an equal willingness to listen and engage from public and private organisations alike. It has been found that some adults can lack trust in young people when working to address issues such as climate change (Haynes and Tanner 2015).

In Vietnam, for example, an informant asserted that local authorities rarely take young people's opinions into account.

Despite mechanisms to get young people's inputs, adults do not believe in their credibility: "Some people [...] think that children have not developed fully in terms of capacity, then the children's opinion is just for reference. [For young people] to put in a solution or a policy that contributes, people in certain areas are not very interested." (VN KII1).

This is indeed a major factor influencing the implementation of existing policies and mechanisms that promote the participation of young people, as duty bearers act on their

⁷ CS Tobiko bets on youth to tackle climate change. Ministry of Environment & Forestry. <u>http://www.environment.go.ke/?p=5469</u>

⁸ School Curricula Revamp in Ethiopia: Climate Change in The Spotlight. UN CC:Learn. <u>https://www.uncclearn.org/news/school-curricula-revamp-in-ethiopia-climate-</u> change-in-the-spotlight/

⁹ Indonesia is Making Teachers Part of the Solution to Climate Change. UN CC:Learn. <u>https://www.uncclearn.org/news/indonesia-is-making-teachers-part-of-the-solution-to-climate-change-2/</u>

¹⁰ Integrating climate change education in school curriculum. The Daily Observer. <u>https://www.observerbd.com/details.php?id=305730</u>

subjective, biased perception of young people. This attitude is observed in all the study countries.

This attitude does not only impact the opportunities for young people to participate but also their own motivation and aspiration. An Indonesian informant confirmed by sharing that: "We, children need support from adults and the government, because the opinions expressed by children are often considered trivial. We also need a positive response from the community towards the initiatives we are undertaking" (ID FGD6).

"Young people are underestimated everywhere in policy making and in government budget. We are not being valued. Adults think that young people have no knowledge or experience of climate change."

Youth leader, YouthNet for Climate Justice, Bangladesh

Without a more welcoming and positive attitude from adults, young people may not feel encouraged to start or continue their contribution to climate action. Moreover, young people sometimes internalise such distrust, and express concerns about not being able to convince older generations of their ideas and credibility (Haynes and Tanner 2015). This hinders their ability and motivation to engage.

Another challenge is the belief that young people's place is at school and in the classroom. According to informants in Bangladesh and Vietnam in particular, some parents still want their children, especially those in primary and secondary schools, to focus on schoolwork. Activities outside of the classroom can distract students and consume the time otherwise dedicated to studying or doing homework.

In Vietnam, Senegal, Kenya, and Bangladesh, there is also a strong view that young people's engagement in climate change is "volunteerism," an unpaid activity that is only affordable to those with financial means. This is partly true, as people from worse-off households may not be able or be encouraged by parents to participate in public matters. Moreover, some engagement activities incur costs to travel or participate. Several informants who engage young people in their work noted, however, that young people from different socio-economic groups do participate. This demonstrates the importance of designing programmes with co-benefits to ensure opportunities are inclusive and equitable.

In Ethiopia, when asked about barriers facing the engagement of young people, informants mentioned "dependency syndrome". Some people suggested that young people tend to rely on their parents and adults rather than taking initiatives themselves, while others referred to communities relying on foreign-funded projects and programmes for social assistance and thus, not actively working with young people to address their needs. Ethiopians are also challenged by a common view of climate change as a natural phenomenon that does not require deliberate action. These attitudes and perceptions are important to understand and tackle to effectively engage young people in climate change and health.

Best practices and opportunities for effective engagement

To overcome such challenges, numerous successful engagement efforts across the six countries have underscored key lessons. This section discusses best practices, lessons learned and opportunities for effective and meaningful engagement of young people in climate and health action.

Coupled training and action

Effective engagement with young people requires the right support, either through mentorship or technical assistance (Amponsem et al. 2019; Benkenstein et al. 2020). Examples from the literature as well as interviews often involve a training component where young people learn a new skill or knowledge hands-on, such as how to use and raise awareness about contraceptives or what climate-resilient agriculture entails. Youth-led projects, likewise, usually involves adult expertise to complement the efforts of young people (Haynes and Tanner 2015). Thus, no matter if an activity is led by adults or otherwise, giving young people the skills and an enabling environment to act is critical.

Coupled training and action has two benefits. Young people, due to their age, may not have the needed skills to move from idea to action. When running a project, they may struggle to navigate administrative bureaucracies. Young people may lack experience in communication, project management, fundraising, or networking. Indeed, when talking about climate change advocacy, a youth leader in Bangladesh shared that young people often get stuck in the most familiar methods of campaigning such as using posters and wished to explore and apply new approaches (BD KII9). Helping young people build and apply new skills address these capacity gaps.

The learning process also helps sustain engagement, as young people immediately own new knowledge and the activities they are involved in. Without such support, according to several informants, young people may grow frustrated and lose motivation in the process. Project-based, skill-based learning as well as education programmes on climate change with an aim to encourage young people to lead action thus are recommended. It is also for this reason that young people's engagement is more effective when it is built into long-term projects and programmes.

Long-term commitments

Effective engagement with young people requires long-term commitment along with the provision of access to information, ideas and skills (Plan International 2015). To participate in policy processes, young people need to take part from the agenda-setting stage to planning and implementation (Amponsem et al. 2019). Long-term commitment with welltrained, contextualised and dedicated staff is also crucial for engaging young people in climate change advocacy projects (Haynes and Tanner 2015; Plush et al. 2018) (see Box 6). Informants suggested that it is important to engage over the long term, as capacity building and knowledge development can take a long time. For example, Jeunes Volontaires pour l'Environnement (JVE Senegal), a programme for young environmental volunteers in Senegal, shared that it is important to nurture interests since a young age and sustain engagement over time. JVE Senegal's strategy involves longterm membership, which starts with raising awareness and training activities in environmental clubs at schools and continues with volunteering activities until university and beyond.

Box 6. Participatory media and child-focused NGOs in Indonesia

In 2016-2017, UNICEF ran Youth Voices from the Frontlines initiative as part of the Children in a Changing Climate coalition in Indonesia. The coalition is a global network of five child-centred organisations: ChildFund, Plan International, UNICEF, and World Vision. The project aims to empower young people and promote their role in governance through creative digital storytelling (Plush et al. 2018).

Youth Voices involved 300 Indonesians vulnerable to air pollution, forest fires, flood, drought, and river pollution. They received training and mentorship while researching, reflecting, and documenting stories around climate change and child rights, health, and well-being issues. Young people then shared the stories and engaged in dialogues with their peers as well as decision-makers in health, education, agriculture, and social affairs.

One of the key lessons learned from the project was the importance of time and resource commitment as well as ongoing organisational prioritisation. As a method, participatory digital storytelling involved a flexible timeline with non-binding commitment. It worked best with established, international child-focused NGOs with adequate resources and networks, both for engagement and advocacy's purposes. It was more suitable when designed as part of ongoing youth programmes with skilled and invested staff. Institutions that are less established or connected may need additional capacity building investment and financial resources to implement similar approaches.

Engagement incentives

Studies found that young people are concerned with several issues, such as employment and career development, sometimes more than with climate change. Thus, it is easier to engage them when climate change is framed as having cobenefits (Corner et al. 2015). In addition to skill building, financial incentive also motivates people to engage.

Projects with an entrepreneurship or a business component create jobs for young people. In rural areas in Vietnam and Senegal, young farmers adapt to climate change by changing crops and running small and medium enterprises to support their community's livelihoods and well-being (SN KII10, Hoang 2021). In Senegal, ZANKE, a Togo-based NGO, trains young people to recycle plastic waste into new products and make profits out of the sales. In Indonesia, Magalarva is a youth-owned start-up that bio-converts waste into sustainable protein for local farmers. In Ethiopia, young people adopt energy-saving technologies and produce sustainable cooking stoves that both contributes to environmental sustainability, health (through reducing pollution from traditional cooking methods) and generates incomes. These models are sustainable financially, and thus help to mitigate the "volunteerism mindset" and make engagement more inclusive.

Financial incentives can also come in a smaller scale. For example, a youth leader in Indonesia shared that she started adopting green practices, such as bringing her own food and drinks, for economic reasons, and only later became more aware of the environmental impacts and started engaging in environmental initiatives at school (ID KII16).

Safe and friendly environment

Engagement tends to take place in youth-friendly environment, such as at school, camps, in clubs, extracurricular activities, or their own communities. These 'comfort zones' allow young people to interact with their peers, families, and communities. An enabling environment may consist of peers that young people blend in best with, in places and with activities of interest to them (BD KII4). A Senegalese informant found that young people may have difficulties insert themselves and that community engagement is an effective springboard to begin their civic engagement (SN KII6). Outside of such familiar environments, with stakeholders like official authorities, it is important to ensure that people are open-minded and willing to listen to young people's ideas, opinions and perspectives (Plush et al. 2018). Adults can also help manage expectation by reminding young people that change takes time and impacts may not be immediately visible (Haynes and Tanner 2015). Ultimately, it is important to create a safe space where young people can practice their freedom and agency: "We don't consider them [young people] as objects of mobilisation. We consider them as partners, as actors, and when they know that you give them attention, that you don't consider them as objects of mobilisation, they are ready to do anything" (SN KII3).

Creating an enabling environment for young people to tackle the health impacts of climate change also involves creating awareness within the communities. For example, in Ethiopia, several KII informants shared that many people still believe climate change and disasters are natural and not man-made. Thus, they may not be supportive of climate change initiatives whether young people are involved or not. Similarly, the founder of Green Generation Initiative, a youth-led organisation working on greening schools and environmental education and mentorship in Kenya, highlighted people's disregards for environmental issues as one of the initiative's biggest challenges. "I've experienced people who just don't care about harming the environment and it breaks my heart," she shared.¹¹

Local level engagement

Linked to the idea of a safe and friendly environment is the scale of engagement. Community-based activities build on and enrich young people's knowledge of climate change in their towns and neighbourhoods, and they can come up with solutions that are most relevant (Amponsem et al. 2019; Krishnamurthy et al. 2020). Through FGDs, young people demonstrated knowledge of traditional practices and beliefs passed on by older generations that can contribute to climate change efforts. Working at the local level helps young people relate scientific knowledge to their lived experience, which nurtures a sense of ownership over the project. Indeed, already in six countries, young people are engaging in locally led climate change adaptation, whether within their family, at school or in the community. These are entry points for future, scalable interventions.

Engaging locally also means adapting programmes and projects to local culture, norms, and perceptions. A young Indonesian shared their experience initiating a project that did not receive approval from the authority at first try: "Previously our activity was rejected because it was titled "gender equality", which was considered westernised by the Village Government; so that the name of the activity was then adjusted to be accepted" (ID FGD5). In this case, it should be noted that while it is important to challenge such beliefs, being aware and tackling them skilfully will be important to ensure that young people's engagement is welcomed.

New forms of engagement

A recognised strength of young people is their ability to take advantage of new tools and approaches for advocacy and engagement. They can drive actions through new ways of lobbying, mobilising, capacity building as well as working in social enterprises (Amponsem et al. 2019).

In many contexts, young people have used social media to reach out to diverse groups and communicate with each other as well as to mobilise and organise for social movements (Benkenstein et al. 2020; Chowdhury et al. 2014; Costanza-Chock 2012; UNDP et al. 2020). Indeed, many of our KII informants mentioned the use of social media to amplify youth voices and influence (Box 7). Young people who are immigrants are also able to engage in international social movements that they come across on TV or social media (Costanza-Chock 2012).

However, as discussed earlier, young people, particularly minoritised groups in rural and remote areas, do not have equal access to technology and media. New forms of engagement such as social media can be a double-edged sword unless deliberate attention is given to issues of access and inclusion. In addition to social media, young people are also savvy and quick in adopting creative tools. In Kenya, community-based organisation Hope Raisers Initiative ran Future Yetu,¹² a digital storytelling project that connected young people in Nairobi's fourth biggest informal settlement Korogocho with community members, urban planners, and the local government. The youth-led digital stories initiated a community dialogue around Korogocho's environmental challenges, including air pollution, and led to the prototype of a Carbon Sink Pocket Park as well as the launch of the Korogocho Community Climate Adaptation Manifesto.

Digital storytelling and participatory media initiatives "hold promise for meaningful youth participation in decisionmaking, which can be especially empowering for young people living in poverty or vulnerable situations who may struggle to have their voices heard due to multiple factors" (Plush et al. 2018, p.5).

¹¹Green Generation Initiative: working towards a green future. The Queen's Commonwealth Trust. <u>https://www.queenscommonwealthtrust.org/inspiration/green-generation-initiative-ggi-kenya-environment-conservation/</u>

¹² Future Yetu. Hope Raisers. <u>https://www.hoperaisersinitiative.com/future-yetu</u>

Box 7. Social media for policy engagement in Bangladesh

YouthNet for Climate Justice (YouthNet) is a network of young people aspiring to ensure climate justice in Bangladesh. YouthNet members work towards adaptation, mitigation, resilience-building, youth advocacy and youth leadership. Their activities range from capacity building and disaster preparedness and response to policy engagement and global movement participation such as the Fridays for Future. They collaborate with a youth organisation, *Pratiki Zubo Sangsad*, or Bangladesh Model Youth Parliament. The Parliament empowers young people about parliamentary democracy and how to hold leaders accountable. Together with YouthNet, they hold leaders accountable for their climate change promises (BD KII7).

In 2019, YouthNet members successfully aided in the passing of the Planetary Emergency Bill. They were engaged in advocacy efforts along with politician Saber Hossain Chowdhury and issued memorandums in 25 districts on the bill. Recounting their success, a member shared that the bill was passed in the National Assembly with pictures of their activities and engagement.

The group has also been active in demanding the Bangladeshi government to move away from coal towards renewable energy. Since COVID-19, they have switched to online, digital platforms and raised their voices not only to Bangladeshi leaders but also international actors. When a proposal to build 29 coal plants was brought to the table, YouthNet members used Twitter and other social media channels to reach out to coal investors worldwide and remind them of the Paris Agreement. In parallel, they exchange dialogues with the Bangladesh High Commission in London, the Swedish High Commission in Bangladesh, the Netherlands High Commission, and other relevant diplomatic institutions on the matter, in lieu of an official channel to engage with their government. Youthnet also organises meetings with young people beyond the group and present their opinions and concerns to the local and national governments.

Talking about future engagement, the group expressed interests in engaging more in the health sector. In the past, they have worked with the Department of Family Planning on sexual and reproductive health initiatives in coastal areas of Bangladesh. Despite a positive experience, the engagement was not sustained due to funding challenges (BD KII7).

Discussion and conclusions

Young people's engagement is diverse and multi-faceted across the six countries. Whether it is through government consultation, development projects, volunteering programmes, social movements, or activism, youth-driven civic engagement proves an important force in tackling environmental and health challenges. In both rural and urban areas, young people are raising public awareness, participating in policy processes, and taking concrete actions to adapt to climate change and improve public health.

The role of young people in addressing health impacts of climate change, however, remains a gap. Currently, some programmes and initiatives involve young people in parallel health and climate change projects, while others draw the links between health, well-being and environmental sustainability, such as through the PHE approach. Climate change and environmental engagement may also have health co-benefits, such as efforts related to climate-induced disasters, air pollution, agriculture, or energy-saving stoves with positive impacts on well-being, respiratory health, and food security. There is room for more efforts to engage young people with an explicit focus on climate change impacts on health.

Much, however, can already be learned from the current actors that work with young people in climate and health, including local and international NGO staff, researchers and academics, schoolteachers and health workers, and policy and decision-makers. Their diverse perspectives have shown that young people's engagement must be nurtured, invested in, and sustained over the long term and in their own communities.

Education to build knowledge early on helps spur interests and awareness of local issues and inform action and engagement as they grow up. Youth-friendly and actionable messaging about climate change is an important enabler. Past and ongoing participatory approaches to grapple with sexual and reproductive health, mental health, and WASH topics lay out a health entry point. Technical, human, financial and material resources must be coordinated, and policies and institutional mechanisms developed to ensure young people can engage in a meaningful way. These factors do not only help our communities solve the urgent climate crisis with young people's unique powers and capacities, such as social network and peer influence, and social media and technology savviness. Young people's engagement also ensures climate and inter-generational justice. Adults play a key role in providing younger generations with the space and the skill to raise the opinions, ideas, and real-life experience and knowledge of those who, due to their age, contribute the least yet suffer the most burdens of climate change on health.

As observed by adult key informants and demonstrated by youth leaders in this study, as much as young people's health is at risk under the impacts of climate change, they are eager to fight for their voices to be heard. Young people living in remote regions, informal settlements, with different abilities, of ethnic minorities, and non-normative genders and sexualities, as well as young people in the work force, young farmers and mothers, are disproportionally vulnerable, with lower access to information, resources and opportunities. Their ideas and inputs are important, and must not only be listened to but also acted upon and realised.

"If we Africans are suffering the most from climate change and Europeans lead the fight for us, that's a problem."

Youth leader, Fridays for Future Senegal, Senegal¹³

Engaging young people in climate change and health also allows traditional knowledge passed on through generations to be included in climate change action. Participatory approaches can help protect knowledge from the older generations and Indigenous Communities, and reflect young people's lived experience in policies and action. Youth leaders themselves have highlighted the top-down nature of climate change-related decision-making, resulting in youth voices and experiences from diverse contexts being overlooked (BD KII7). Young people's engagement is therefore a key avenue to shift power over knowledge and the climate agenda at large to local communities in Africa and Asia on the frontlines of climate change.

¹³ Senegalese teen battles indifference, religion to launch climate campaign. Reuters. <u>https://cn.reuters.com/article/us-climate-change-senegal-youth/senegalese-teen-battles-indifference-religion-to-launch-climate-campaign-idUSKBN1WC1GC</u>

Recommendations

Young people are undoubtedly shaping climate change and health action at different scales across Africa and Asia. The effective engagement of young people in grappling with the health impacts of climate change, however, requires greater recognition and concerted efforts from public and private sector actors alike.

Based on the research findings, we present recommendations for three key actor groups in climate change, health and young people's engagement: i) decision-makers, ii) civil society organisations, and iii) funders. The recommendations are rooted in the research conducted in the six countries, but are relevant for young people's engagement in climate and health across scales and regions.

Decision-makers

Decision-makers at all levels should identify, establish and support formal avenues for young people to be part of decision-making and implementation processes, while also making administrative processes and policy communication inclusive for people of all ages, abilities and background. This may be done through:

- Mainstreaming young people's engagement in sectoral planning, policies and implementation. This can take the form of mandated youth consultation in policy processes or institutionalised youth constituencies in government agencies.
- Investing in capacity building for government offices at all levels, particularly sub-national and local governments, to effectively and meaningfully engage young people. For example, this may include the capacity to facilitate or engage in dialogues with young people; to use social media for communication; and to work with schools, universities and NGOs to empower youth actors.
- Allocating sufficient and sustained financial resources for efforts engaging young people, including for capacity building and project implementation, and for creating and overseeing coordination and M&E mechanisms to ensure effective implementation.
- Making institutional procedures, particularly those related to young people and youth-led initiatives, accessible to all. This may include streamlining processes and simplifying administrative requirements to, for instance, access

financial resources, provide inputs to decision-making processes, or establish a youth-led entity or network.

• Integrating knowledge on the health dimensions of climate change into national school and higher education curricula. Education ministries should work with climate change and health knowledge producers and actors to include public health concerns in on-going efforts to mainstream climate change into formal education systems at different levels.

Civil society organisations

Civil society actors, including practitioners, NGOs, and researchers, play important roles in bridging the government and the general public, including young people. To enhance meaningful engagement, civil society must sustain and expand efforts to work with young people in holding public and private sector institutions accountable and demand for transformative climate action, while supporting the empowerment of future generations to address climate and health issues. This may be done through:

- Advocating for the links between climate change and global heating, health and other development challenges to be articulated and reflected in policies and coherent decision-making and climate and health.
- Co-designing and implementing projects and initiatives in partnership with local youth-led organisations, ensuring the sustainability of young people's engagement.
- Leading on capacity building for all relevant state and non-state actors, at different levels, to work with young people on climate and health matters.
- Leading on capacity building for young people to engage in decision-making processes and implement youth-led initiatives, for example through evidence-based, interactive, practical and sustainable activities on climate change and health, with a focus on coordination, management, fundraising, different forms of (age- and ability-appropriate) communication, and M&E skills.
- Raising awareness for all community members on the health impacts of climate change, creating an enabling and supportive environment for young people's voices to be valued, heard, and acted upon by all.

- Building programmes with tangible incentives and cobenefits, not only to attract the attention of young people, but also to ensure diversity and inclusion. For example, by following the model of self-sustaining social enterprises to support livelihoods and skills sharing.
- Recognising and including traditional and local knowledge pertinent to climate change, health and young people, to ground programmes and initiatives in local communities and protect Indigenous Peoples cultures and identities, where appropriate.
- Recognising and including the voices and experience of under-represented groups, including young people with different abilities, Indigenous Peoples, non-normative genders and sexualities, as well young mothers and those not in schools and formal education systems.
- Research, create networks and platforms, and share best practices and lessons learned on effective and meaningful young people's engagement, for example on political movements and advocacy efforts linked to climate and health action.

Funders

International donors and national funding agencies are key actors for ensuring young people are meaningfully engaged in climate and health action, from decision-making to programme implementation, and must play a role in enhancing the current level of engagement. This may be done through:

- Actively seeking to support stronger connections and collaborations between the climate change and public health sectors, to enhance young people's engagement in relatively new cross-sectoral spaces for learning and knowledge creation.
- Identifying and scaling-up existing youth-led initiatives, especially those not supported or facilitated by the state or another institution, which tend to be small and underfunded.
- Prioritising funding support for marginalised and minoritised groups and communities often excluded from mainstream funding opportunities, either due to a lack of awareness or capacity to access, but are still facing (or are expected to face in the future) health- and climaterelated challenges.
- Prioritising new and alternative ways of engaging young people, such as through social media platforms or emerging information and communication technologies. It is important to ensure that these new approaches are inclusive and tackle, rather than reinforce, pre-existing social inequalities.

- Engaging with and learning from health actors that have adopted participatory and inclusive approaches to addressing young people's health issues, particularly sexual and reproductive health and WASH, which may be exacerbated by climate change.
- Supporting long-term partnerships between the more established, well-resourced, child-centred international organisations and emerging grassroots, youth-led networks, to build new capacities and identify transformative actions for climate and health rooted in local ownership
- Supporting and creating more opportunities for youth-led networks and groups operating at different scales, for example by removing barriers to entry linked to application processes, financial requirements and limited capacities and networks.

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Annex: Landscape mapping country tables

Bangladesh

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in tackling climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
Nationally Determined Contributions 2020 (Interim)	Interim NDC update with mitigation and adaptation actions towards "a low- carbon, climate- resilient economy while ensuring that it will not cross the average per capita emissions of the developing world."	The government and private actors in the energy sector	No mention	No mention	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.
Intended Nationally Determined Contributions (INDC) 2015	INDC consists of mitigation contributions, adaptation components, implementation coordination and governance, and implementation need assessment.	Appropriate line ministries and agencies, coordinated by the Climate Change Secretariat in the Ministry of Environment and Forests, reporting to the Advisory Committee and the National	Adaptation priorities include health protection, adapting to climate change impacts on health, and mainstreaming climate change adaptation into the health sector	No mention	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

		Environment Committee				
Bangladesh Climate Change Strategy and Action Plan 2009	A ten-year pro-poor climate change management programme to build capacity and resilience to climate change, based on six pillars: food security, social protection and health, comprehensive disaster management, infrastructure, research and knowledge management, mitigation, and capacity building.	Over 35 concerned ministries and line agencies as well as the civil society and private sector, coordinated by Ministry of Environment and Forests, under the guidance of the National Environment Committee, chaired by the Prime Minister	Policy identifies the impacts of climate change on food security and health. Action plans include ensuring food security and access to basic services including health; building capacity for the health system; and increasing research on the linkages between climate change, poverty and health, and on the impacts of climate change in disease patterns and social and economic costs of disease	Policy mentions young people as a vulnerable group and aims to improve their resilience. Policy also aims to build capacity for key ministries to take forward climate change adaptation, including the Ministry of Women's and Children's Affairs.	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.
National Adaptation Programme of Action (NAPA) 2005	This strategy focuses on reducing adverse effects of climate change and promote sustainable development. Adaptation activities include both intervention type measures (e.g., construction of shelter) and facilitating type measures (e.g., including climate change in school curriculum).	Government, research institutes and civil society	Policy identifies impacts of climate change on human health. It identifies the highest intensity impacts from extreme temperature and salinity intrusion. Action plans include mainstreaming adaptation into health sector, building capacity for health sector, and increasing awareness about	Young people listed as a vulnerable group	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

			diseases due to climate change.			
National Youth Policy 2017 (Draft English Version)	This policy aims at fulfilling young people's potential and empowerment on the following priority areas: empowerment, health and recreation, good governance, sustainable development, equitable development, building a healthy society, globalisation and survey and research.	Steering Committee under the Ministry of Youth and Sports, with youth representatives	No mention	Promote young people's awareness and engagement in activities to address climate change. Youth representatives to be involved in the Steering Committee implementing the policy.	No mention of how policy was formulated.	The policy recognises young people as an active agent and encourages their engagement.
National Strategy for Adolescent Health 2017-2030	A 14-year plan to ensure all adolescents will be able to attain a healthy and productive life in a socially secure and supportive environment.	Collective responsibility of government, CSOs, private sector, religious authorities, communities, families, and young people. Led by the Directorate General of Family Planning and Ministry of Health and Family Welfare	No specific mention of climate change, but lists disasters as a challenging circumstance for health, particularly mental health, of adolescents	Participation and inclusion of young people as a guiding principle of the plan.	Strategy development process included four FGDs with young people. Young people will be sought in the development of relevant action plans.	The policy recognises young people and their inputs in policy development and implementation, but it is not clear how young people will be engaged in implementation.
National Health Policy 2008	This policy aims at sustainable improvement in health, nutrition and family welfare status of the people, particularly vulnerable groups.	Collaboration between Ministry of Health and Family Welfare, relevant ministries, civil society organisations, community-based	Policy mentions health impacts of climate change and aims to address disease threats of climate change, incorporate climate change in health	Poor young people as a vulnerable group	No mention of how policy was formulated.	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

organisation and the	research agenda and
private sector	increase awareness

Name of organisation	Relevant focus areas	Interest in young people's engagement
Government agencies		
Ministry of Women and Children's Affairs	Young people	Medium
Ministry of Education	Education and young people	Medium
Ministry of Flood and Disaster Management	Climate change	Medium
Ministry of Environment, Forests and Climate Change	Climate change	High
Ministry of Health and Family Welfare	Health and young people	High
Ministry of Youth and Sport	Young people	Medium
NGOs and CSOs		
BRAC	Development	High
ActionAid	Development	High
Save the Children	Young people	High
CARE Bangladesh	Development	High
World Vision	Young people	High
British Council	Young people	High
British Red Cross	Development	High
UNICEF	Young people	High
UNDP	Development	High
Academia		
BRAC University	Development, climate change and health	High
Dhaka University	Development, climate change and health	High
Youth-led groups		
Lal Sabuj Society	Climate change and young people	High
Brighters Society of Bangladesh	Climate change and health	High
YouthNet for Climate Justice	Climate change	High
Youth Environment and Social Development Society	Environment and development	High
Bangladesh Youth Environmental Initiative	Climate change and young people	High
Bangladesh Youth Initiative	Young people	High
Bangladesh Model Youth Parliament	Young people	High
Private sector		

DNET	Health and development	High

Ethiopia

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in tackling climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
National Health Adaptation Plan to Climate Change 2018-2020	This plan focuses on ensuring the health system is climate- resilient, by building capacity of the health sector and creating an enabling environment for health adaptation to climate change.	Federal Ministry of Health, Ministry of Environment, Forest and Climate Change; Ministry of Agriculture and Natural Resources; Ministry of Water, Irrigation and Electricity; Ministry of Urban Development and Housing; Office of Government Communication Affairs; National Metrology Agency; Ministry of Education;	The policy mentions mainstreaming climate change adaptation into health by adopting building codes for health facilities, maximising climate information utilisation by the health sector for predicting and preventing climate- sensitive diseases, advocating and creating awareness on climate change and health, and encouraging operational research on health and climate change.	No mention	No mention	In general, the policy talks about climate change and how to make health systems resilient. However, there is no mention of how young people have been involved in formulation and climate action.
Climate Resilient and Green Economy strategy 2011, 2014	The objective is to achieve middle- income status by 2025 in a climate- resilient green economy, ensure abatement and avoidance of future emissions, and improving resilience to climate change.	Prime Minister's Office, the Environmental Protection Authority, and the Ethiopian Development Research Institute	Policy mentions a wide range of health impacts of climate change, e.g., morbidity and mortality caused by extreme temperature, vector-borne diseases (e.g., malaria and bilharzias) and weather condition- related diseases.	No mention	No mention	The policy explicitly talks about climate change but there is no information in relation to health. Young people are engaged.

The National Adaptation Plan (NAP) 2019	The objective is to create climate change resilient development for Ethiopia and its people, to reduce climate change vulnerability by building adaptive capacity and resilience to enhance economic development, and to facilitate the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes and activities.	Ministry of Environment, Forest and Climate Change; Inter-ministerial steering body with technical support from USAID-Ethiopia, United States Forest Service International Programmes and International Institute for Sustainable Development	Improving human health systems through the implementation of changes based on an integrated health and environmental surveillance protocol. Increase in temperature and drought frequency, and extreme events, including heat waves, and increase of vector borne diseases.	The NAP communication strategy targets national, regional, and local decision- makers as well as youth groups, among others. NAP adaptation options will give special emphasis to women, and children through safety net schemes.	No mention	The policy covers climate change and its impacts on health, but there is no mention of how young people are engaged.
Public Health Emergency Management (PHEM)	The main aim of the PHEM guideline is to assist all public health officers, stakeholders and development partners, who take part in public health emergency management, in the implementation of the new approach in a standardised way throughout the country.	Public Health Emergency Management (PHEM) Center, the Federal Ministry of Health,	The policy outlines the steps of conducting a Vulnerability Assessment and Risk Mapping.	No mention	No mention	The policy is more focused on health with reference to environmental vulnerability. There is no reference to the engagement of youth.
NDC 2015	The goal is to limit GHG emissions in 2030 to 145 Mt CO2e or lower, and to undertake adaptation initiatives to reduce vulnerability based on CRGE Strategy.	Ministry of Environment, Forest, and Climate Change	No mention	No mention	No mention	The policy briefly mentions the mainstreaming of climate change to the health sector with no reference to youth engagement.

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Red Cross Young People Volunteer Club Development High Climate Change Africa Climate change High	Woldia University	Climate change, climate smart agriculture	Medium
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	Red Cross Young People Volunteer Club	Development	High
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	Connect 4 Climate	Climate change	High

Private sector			
Bale Beauty	Environmental protection	High	

Indonesia

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in tackling climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
Climate Resilience Development Policy 2020-2045	Policy directions and strategies to increase national resilience to the impacts of climate change; Increasing climate resilience is focused on 4 affected sectors, namely the water sector, the marine and coastal sector, the agricultural sector, and the health sector.	Relevant ministries and agencies in the four climate resilience sectors; local government, especially in priority locations; Actors such as NGOs, academia, communities, and the private sector	There are policy directions and strategies for climate resilience in the health sector, to anticipate the impact of climate change on increasing indicators of the incidence of dengue, malaria, and pneumonia, etc.	No specific mention of strategies involving the youth. However, the parties involved in this climate resilience goal include NGOs and communities that consist of young people and children.	No mention	A reference in youth movements and initiatives to contribute to climate change management
National Adaptation Plan Executive Summary 2019	This is an adaptation strategy to become more climate-resilient with a focus on four priority sectors: marine and coastal, water, agriculture and health, and four strategy clusters: infrastructure, governance, capacity building and technology	Ministry/Institution, Local government, Research Institutions, NGO and Local community. Plan developed by National Development Planning Agency	Health is one of four priority sectors for intervention. Health action plans focus on healthy facilities and building standards, water-borne disease and outbreak early warning and modelling, health education, and governance at household and village levels. Health is also mentioned as interest and role of the local community	Health sector strategy lists local youth community as an actor in its governance priority	No mention	The policy considers young people as a governance actor but does not provide any details or mechanisms for implementation.

First Nationally Determined Contributions 2016	This includes enhanced actions and necessary enabling environment for comprehensive adaptation and mitigation programmes towards achieving climate resilience in the archipelago.	Directorate General of Climate change, Ministry of Environment and Forestry, National Development Planning Agency, Ministry of Finance, and Ministry of Foreign Affairs and relevant ministries	One objective is to improve adaptive capacity and social and livelihood resilience through provision of public health services and programmes, and reduce risks in all sectors including health	Mention young people as a vulnerable group	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.
Low Carbon Development Indonesia (LCDI)	Indonesia's low- carbon development aims to maintain economic and social growth through low GHG emission development activities and minimise natural resource exploitation.	Relevant ministries and agencies in the low-carbon development sector; Regional government; Private sector	There is no link with the impact of climate change on health	The policy addresses the role of young people in local level waste management and transportation (reduction of waste and use of public transportation). LCDI implementation involves young people who are members of NGOs or communities.	No mention	The policy mentions youth movements and overall increase youth involvement in government programmes and activities
Program Kampung Iklim – Climate Village Program	A national programme managed by the Ministry of Environment and Forestry to increase the involvement of the community and other stakeholders in strengthening climate change mitigation and adaptation activities and improving welfare at the local level.	Ministry of Environment and Forestry	Included in the adaptation component in the climate village programme, namely controlling climate- related diseases	Young people in the villages where the Climate Village Program is located can be directly involved	Starting to be improved by integrating it with KKN activities (college students' community services), so that the initiatives carried out in the field can come from the ideas of young people	Relevant in increasing opportunities for young people's roles in climate change and health management, especially at the local level

<i>Desa Tangguh Bencana</i> - Disaster Resilient Village	Building villages' disaster readiness. Through this programme, villagers are expected to be able to study, analyse, handle, monitor, and evaluate as well as reduce disaster risks in their area by utilising local resources.	National Board for Disaster Management	Anticipated disasters include hydrometeorological disasters such as floods, landslides, droughts, and abrasion	Can involve village youth communities such as Karang Taruna (youth organisation), mosque youth community, and others	Young people's involvement in disaster anticipation strategies in the village	Relevant young people's increasing youth involvement
Desa Sehat Iklim – Climate and Health Village	Increasing public awareness of the importance of climate change adaptation and health. A form of appreciation for villages that have implemented a healthy lifestyle and a healthy environment, especially in tackling diseases outbreak that are influenced by climate.	Ministry of Health	Various dimensions of climate and health	Not direct mention, but young people will be involved in self environmental health activities (maintaining a healthy lifestyle and environment)	No mention	Increase opportunities for young people's involvement in addressing climate change in the health sector
Gender-responsive climate change policy	This policy ensures that policies and programmes in dealing with climate change have considered vulnerable groups, especially women and children; in addition to increasing the role of women and children in climate change action	Ministry of Women's Empowerment and Child Protection	Related to tackling climate change in all sectors, including the health sector	Advocacy to integrate gender considerations in government programmes and activities; in this case it is relevant in increasing the role of young people in dealing with climate change and health	No mention	Opening opportunities to increase young people's involvement in policy making, through policy dialogues (socialising the obligations and rights of young people in government activities)

Health National Adaptation Plan	Adaptation policies and strategies for the health sector, in the context of the impact of climate change on increasing disease incidences. The policy was prepared to ensure that climate change risks are integrated in health policies and relevant cross-health Climate- Sensitive Diseases (CSD) programmes	Ministry of Health and other Ministries and Institutions related to climate change management in the health sector	An effort to institutionalise adaptation activities in the health sector.	No mention	Young people are not involved in the formulation of policies	Policy implementation can be improved by opening space for young people's involvement
Strategic Planning Ministry of Health 2015-2019	Healthy Indonesia Program aims to improve the health outcomes and nutrition status of all Indonesians through efforts in community empowerment, healthcare provision and national health insurance.	Ministry of Health and all stakeholders of the health sector	The strategy includes improving environmental health and "extending the role of regions that carry out the strategy of health outcome adaptation due to climate change"	No mention	No mention of how policy was formulated	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

Name of organisation	Relevant focus areas	Interest in young people's engagement
Government agencies		
Meteorology, Climatology, and Geophysical Agency	Climate change	Medium
Indonesian National Board for Disaster Management	Climate change	High
Ministry of Environment and Forestry	Climate change	High
Ministry of Health	Public health	Medium
Ministry of Education and Culture	Young people	High
Ministry National Development Planning	Climate change and young people	Medium
Ministry of Social Affairs	Young people	High
Ministry of Youth and Sports	Young people	High
Ministry of Woman and Child Protection	Young people	High
NGOs and CSOs		
The Alliance of Biodiversity International and CIAT	Climate change	High
INAPLAS	Environment	Medium

Climate Reality Project	Climate change	High	
American Red Cross	Development	High	
Plan Indonesia	Young people	High	
ChildFund	Young people	High	
World Vision Indonesia	Development	High	
Mercy Corps	Development	High	
UNICEF	Young people	High	
UNDP	Sustainable development	High	
PATTIRO	Climate change	High	
Academia			
Sriwijaya University	Young people and education	High	
University of Indonesia	Young people and education	High	
Youth-led groups			
Greenpeace Youth Indonesia	Environment	High	
Youth for Climate Change Indonesia	Climate change	High	
Youth for Climate Camp	Climate change	High	
Gerakan Pramuka Indonesia	Young people	High	
Private sector			
Indonesia Business Council for Sustainable Development	Environment	High	
INAPLAS	Environment	Medium	

Kenya

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in tackling climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
Climate Change Act 2016	Kenya's Climate Change Act (2016) is national legislation that provides for an enhanced response to climate change and mechanisms and measures to achieve	National Climate Change Council, Ministry of Environment and Forestry (Climate Change Directorate)	The Climate Change Act 2016 provides a regulatory framework for the development, management, implementation, and regulation of mechanisms to	The act proposes the incorporation of climate change into educational curricula at different levels starting with primary through to tertiary.	No mention	The policy provides for climate change incorporation in educational curricula from primary level to tertiary level, to create awareness of

	low-carbon climate- resilient development.		enhance climate change resilience and low-carbon development			climate change and its impacts.
National Adaptation Plan 2015	NAP is the basis for the adaptation component of Kenya's Nationally Determined Contribution (NDC) and consolidates the country's vision on adaptation actions. NAP provides a climate hazard and vulnerability assessment, and sets out priority adaptation actions in the 21 planning sectors.	Ministry of Environment, Natural Resources and Regional Development Authorities	NAP identifies strategic adaptation actions for health to strengthen the integration of climate change adaptation into the health sector.	Strengthen the adaptive capacity of the most vulnerable groups and communities, including young people, through social safety nets.	No mention	The policy considers young people among vulnerable groups, and prioritises strengthening integration of climate change adaptation in the health sector.
Constitution of Kenya 2010	The Constitution of Kenya is the supreme law of the Republic of Kenya.	Government Executive, Legislature, National Assembly, County Assembly, Judiciary and Attorney General.	Kenya's constitution provides the basis for action on climate change guaranteeing citizens a clean and healthy environment. The constitution also created a devolved system of government counties who have a key role in implementing Climate Change Act over sectors relevant to climate change action including health.	No mention	The public was given 30 days to scrutinise the draft and forward proposals and amendments to their respective members of parliament. The public included young people and groups that represent young people	The policy makes various provisions for young people in Article 55, which requires the State to take measures, including affirmative action programmes, to ensure that young people have access to relevant opportunities and resources but does not mention of their engagement in climate and health- related issues.
Nationally Determined Contribution 2015	Presents Kenya's commitment and intention to achieve a low-carbon resilient development pathways and includes both mitigation and adaptation contributions.	Ministry of Environment and Natural resources	The policy mentions integrating climate adaptation into the health sector.	No mention	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

Kenya's vision 2030, and its medium plans	The overall goal of the environment, water and sanitation sector of the Vision 2030 is "a clean, secure and sustainable environment" by 2030. The Vision also envisages responsible, globally competitive and prosperous youth.	National vision steering committee	Climate change is identified as a cross- cutting thematic area to be mainstreamed in sectoral plans, including the health sector.	Specific interventions related to young people include establishment of youth centres, apprenticeship, mentorship, the development of creative industry hubs and youth enterprise financing, and enhancing employability across public and private sectors.	No mention	The Vision presents opportunities to identify climate- related actions and priorities sectors including health, with potential for young people's engagement.
National Climate Finance Policy 2018	To further Kenya's national development goals through enhanced mobilisation of climate finance that contributes to low- carbon climate- resilient development goals.	Ministry of Environment (Climate change directorate), National treasury,	The policy mentions how climate change impacts increases health costs; it offers opportunity to support priority actions including health services	No mention	No mention	The policy's guiding principles identify young people as vulnerable to adverse impacts of climate change, but there is no mention of engagement in health-related climate change risk.
National Climate Change Action Plan (NCCAP) (2018- 2022)	The NCCAP 2018- 2022 guides climate actions of the national and county governments, the private sector, civil society, and other actors, to enable Kenya's transition to low-carbon climate resilient development.	Ministry of Environment (Climate Change Directorate)	Discusses climate change priorities on health, sanitation and human settlement and climate-related threat to human health. Aims to reduce the incidence of malaria and other vector-borne diseases that increase with climate change	Young people listed as a vulnerable group	No mention	The policy identifies young people as a vulnerable group affected by impacts of climate change.
National Climate Change Response Strategy	The Strategy sought to advance the integration of climate change adaptation and mitigation into all government planning, budgeting, and development objectives.	Ministry of Environment (Climate Change Directorate)	In the health sector, research areas will encompass assessing the risks of populations under climate change impacts (including short and long-term public health effects of extreme weather	The strategy mentions creating climate change training material and programmes for target groups of stakeholders including young people, and sponsoring events	No mention	The policy recognises the role of young people and aims to increase their awareness of climate change but does not specify their engagement.

			events) using climate disease prediction models and identifying the most effective interventions.	with climate change themes for young people.		
Kenya Youth Development Policy 2019	Promotes the holistic empowerment and participation of young people in socio- economic and political spheres for national development, and ensure adequate youth development and empowerment while harnessing their potential for productive engagement at local, county, national and international levels.	The State Department in charge of youth, the Kenya Youth Employment and Opportunities Programme, the National Youth Council, National Youth Service, the Youth Enterprise Development Fund and the Uwezo Fund	The policy mentions promoting mechanisms that support young people's engagement in the development, protection, and conservation of natural resources and climate change action. Also discusses eco- entrepreneurship and green jobs and building capacity for young people in green processes, technology and waste management.	One of the objectives of the policy is to realise a healthy and productive youth population; and support their engagement in environmental management for sustainable development and priority areas for policy intervention including health.	The formulation of the policy was through consultative and participatory approach including national and county forums targeting young people and youth organisations.	The policy promotes young people's engagement in environmental protection and climate activities.
Kenya Health Policy (2014 – 2030)	The main objective of this policy is to attain universal coverage of critical services.	Ministry of Health and County Departments of Health	The policy mentions ensuring that the health sector interacts with and influences the design, implementation, and monitoring of interventions in all sectors including environments and sustainability.	No mention	No mention	Policy implementation could be improved by engaging young people, but there is no mechanism yet.
Public Act Health 2012	The Act focuses on securing and maintaining public health.	Ministry of Health and County departments of Health	No mention	No mention	No mention	Policy implementation could be improved by engaging young people, but there is no mechanism yet.

Health Act 2017	The Act establishes a unified health system and provides regulation for health services, service providers, health products and health technologies.	Ministry of Health and County departments of Health	The policy mentions managing environmental risks and curtailing the occurrence and distribution of diseases and those arising from environmental pollution	No mention	No mention	Generally, the policy talks about unified health system with a mention of environmental health There is no clear mention of young people's involvement.
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Name of organisation	Relevant focus areas	Interest in young people's engagement
Government agencies		
Ministry of Environment and Forestry	Climate change	High
Ministry of Agriculture	Climate change	High
Ministry of Health	Public health	High
Kenya Forest Service	Climate change	Medium
National Environment Management Authority	Climate change	Medium
Ministry of ICT, Innovation and Youth Affairs	Young people	High
National Drought Management Authority	Climate change	High
KEMRI	Health	High
KEFRI	Health	High
NGOs and CSOs		
FAO	Development	Medium
GIZ	Development	High
ChildFund	Young people	High
World Vision	Development	High
Mercy Corps	Development	High
Red Cross	Development	High
One Acre Fund	Climate change	High
UNICEF	Young people	High
Youth-led groups		
Nyalenda Young Turks	Young people	High
Ecological Justice League	Climate change	High
Green Generation Initiative	Climate change	High

Senegal

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in tackling climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
A national strategy for social protection for the period 2016–2035	Aims to increase economic and social growth while adopting a sustainable development approach	Strategic Orientation Committee, under the authority of the President of the Republic, a Steering Committee chaired by the Prime Minister	Policy refers to reducing the negative impacts of climate change on ecosystems, as well as the prevention and management of risks and disasters.	No mention	No mention	Policy mentions the advantage of youthfulness of the population for economic growth yet does not mention young people's engagement.
The Senegal Economic Growth Plan	Its goal is to see Senegal embark on a new trajectory that will enable the country to achieve social solidarity and rule of law by 2035.	Strategic Orientation Committee, under the authority of the President of the Republic, a Steering Committee chaired by the Prime Minister	The strategy references the risk that climate change poses, particularly with respect to the country's coastal areas, with little discussion of health impacts.	No mention	No mention	No mention of young people's engagement in health-related climate change activities.
National Adaptation Programme 2015	Policy aims to strengthen the capacity of sectoral ministries and local governments to assess the implications of climate change and adjust existing policies and budgets for the integration climate change risks	The Ministry of Environment and Sustainable Development	Policy discusses reducing overall vulnerability to the impacts of climate change	No mention	The policy was developed through a participatory process involving the Ministry of Family, Women's Organisations and Youth	The policy talks about climate change impact and reducing vulnerability. There is no mention of young people's engagement in health-related climate change activities.

	and adaptation measures.					
National Strategy on Adolescent Health	Seeks to improve access to youth- focused health services.	Ministry of Health	No Mention	No mention	No mention	The policy concentrates on health issues related to early pregnancy abortion but does not address young people's roles.

Name of organisation	Relevant focus areas	Interest in young people's engagement
Government agencies		
Ministry of Environment	Climate change	Medium
Ministry of Health and Social Action	Public health	High
Ministry of Youth, Employment and Citizen Construction	Young people	High
National Agency for the Promotion of Youth Employment	Young people	High
NGOs and CSOs		
Jeunes Volontaires pour l'Environnement (JVE Senegal)	Young people	High
Urgence écologique	Climate change	High
L'Alliance Nationale des Jeunes pour la Santé de la Reproduction et la Planification Familiale (ANJ/SRPF)	Health	High
World Vision	Development	High
Plan international Senegal	Young people	High
Climate Strike Senegal	Young people	Medium
Enda	Development	High
Teranga Lab	Ecology	High

Green Sedhiou	Young people	High	
UGB VERT	Young people	High	
Academia			
Environmental Institute of Science	Development	High	
Youth-led groups			
Eco-citizen Network	Climate change	High	
Fridays for the Future Senegal	Climate change	High	
National Youth Council of Senegal (CNJS)	Young people	High	
Private sector			
Études Vocation et Citoyenneté (EVOC) Consulting	Young people	Medium	
Green Lab	Climate change	High	

Vietnam

Policy	Overall scope and objectives	Implementing agencies	Health-related climate change risks and impacts	Engagement of young people in climate change/health	Engagement of young people in policy formulation	Overall relevance to the engagement of young people
Updated Nationally Determined Contribution (NDC) 2020	Roadmap for mitigation and adaptation implementation, gaps and action plan	Coordinated by National Committee on Climate Change, focal point Ministry of Natural Resources and Environment, implemented by ministries, sectors, localities and enterprises	Identifies the impacts of climate change at the intersection of public health, gender equality and child protection, and mountainous areas as vulnerable geography. Access to health services and clean water as indicators of adaptation	Young people listed as a vulnerable group	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.
The Third National Communication of Vietnam to the UN Framework Convention on Climate Change	Report on national circumstances, greenhouse gas inventory, climate impacts, adaptation and mitigation, as well as constraints and gaps	National Focal Point Ministry of Natural Resources and Environment	Assesses the impacts of climate change on risks of infectious and water- borne diseases, and the health of young people. Also considers indirect impacts due to food	Identifies young people (especially children under 5) as a vulnerable group due to increasing temperature	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.

			insecurity and poverty. Identifies unequal impacts of climate change on women's health			
4 th Draft Five-Year Health Sector Development Plan 2011-2015	Plan aims to provide good services for all people, with a focus on health workforce, financing, information, medical products, vaccines and technologies and leadership and governance	Ministry of Health, line ministries, sectors, Fatherland Front, and relevant social organisations	Identifies climate change as a determinant of health, leading to infectious diseases, vector-borne diseases, disaster- induced health threats	Identifies young people as a vulnerable group	No mention	The policy does not explicitly consider young people as an active agent nor specify a mechanism for young people to engage in its implementation.
Youth Law and the Vietnamese Youth Development Strategy 2011-2020	The document is a summary of Vietnam's Youth Law and youth development policies, covering health, education and vocational training, civic engagement and rights and obligations	Government ministries and agencies, Fatherland Front, Ho Chi Minh Communist Youth Union, etc.	No mention	Outlines young people's rights and obligations to protect the environment and natural resources but does not address health.	No mention how policy was formulated	The policy addresses young people's engagement as both a right and a responsibility but does not include a clear mechanism for implementation.

Name of organisation	Relevant focus areas	Interest in young people's engagement
Government agencies		
Ministry of Labour, Invalids, and Social Affairs	Young people	High
Ministry of Education and Training	Education and young people	High
Ministry of Health	Public health	Low
Ministry of Agriculture and Rural Development	Climate change	Low
Ministry of Natural Resources and Environment	Climate change	Medium
NGOs and CSOs		
Centre for Rural Development in Vietnam	Development	Medium
Centre for Sustainable Development Studies	Environment and development	High
LIN Center for Community Development	Development	High
Live & Learn Vietnam	Environment	High
Center for Creative Initiatives in Health and Population	Public health	Medium
Center for Development of Community Initiative and Environment	Development	High

ChildFund Vietnam	Young people	High	
Plan International	Young people	High	
Friedrich-Ebert-Stiftung Vietnam	Environment and development	Medium	
Vietnam Red Cross Society	Development	High	
Save the Children	Young people	High	
Oxfam	Development	High	
World Vision	Development	High	
UNDP	Development	High	
UNICEF	Young people	High	
Academia			
Vietnamese Academy for Social Sciences	Development	Medium	
VNU-CRES	Development	Medium	
Youth-led groups			
Youth Union	Young people	High	
The Forest Vietnam	Environment	High	
350 Vietnam	Environment	High	
CHANGE	Environment	High	

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